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DOMESTIC ENGINEERING

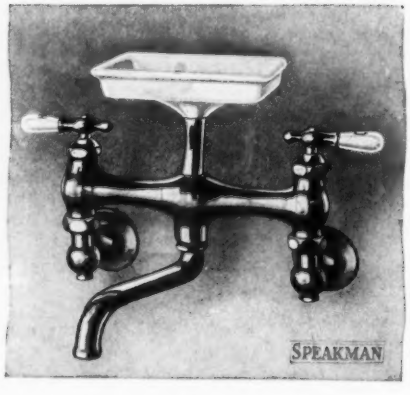
The Plumbing and Heating Weekly

AUGUST 6,
1927

A "Manhattan Cowboy." The water will be pure and refreshing—when he gets to it.

Drinking Water Temperature

The sink fixture is the Speakman H-1894



H-1890

The Fact that Speakman Chromium Plate Will Never Tarnish is Making a Big Appeal to Women —

THEY also appreciate the beautiful silver-platinum lustre of Speakman Chromium Plate and the mirror-like finish.

Remember that all Speakman Showers and Fixtures can now be had in Speakman Chromium Plate, which in addition to its non-tarnishing feature

Is so hard that it will never wear off
Is not affected by steam, cooking fumes or acids, except muriatic acid
Is proof against salt air and salt water

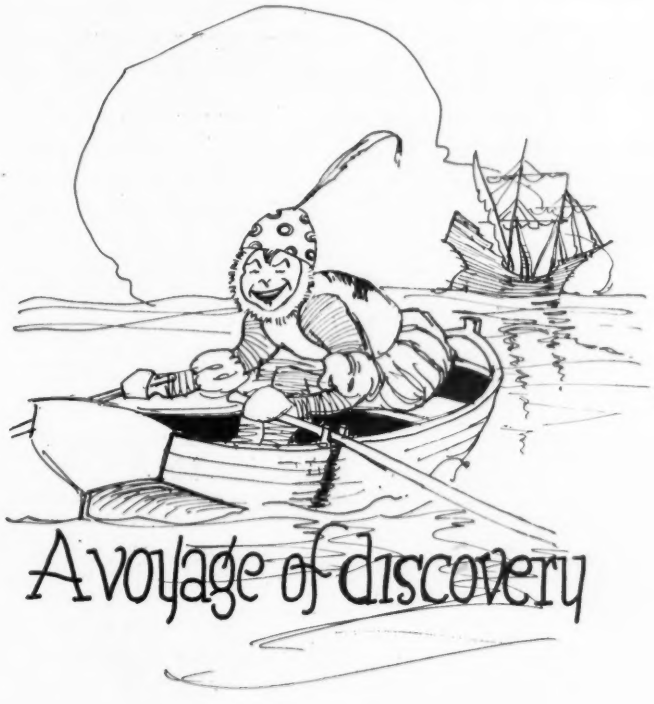
And here is what appeals to the women particularly—

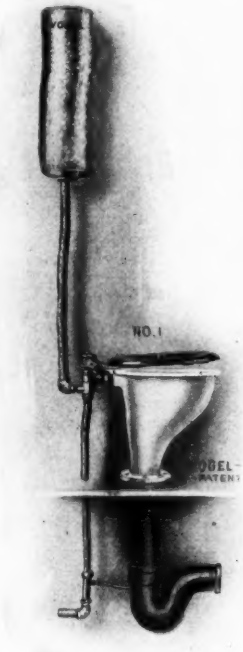
It is always bright and requires no polishing—just wiping off with a damp or dry cloth

We have a folder on Speakman Chromium Plate written so that your customers can readily understand the various features of this new wonderful finish. Also we shall be glad to send you a pocket-piece finished in this wonderful non-tarnishing plate.

SPEAKMAN COMPANY
WILMINGTON, DELAWARE

SPEAKMAN SHOWERS and FIXTURES





Frost Proof Closet No. 1

When Columbus started on his famous voyage, he was taking chances such as no man had ever ventured before. But the rewards of that voyage were rich.

You take chances, too; when you sell your customers plumbing equipment that you are not sure of.

But risks are unnecessary as many of your fellow plumbers will tell you when you sell the VOGEL line of Frost Proof Hydrants and Closets.

Satisfaction and uninterrupted service are your two big talking points in the Vogel line. Write us for proof.

Our Catalog in Domestic Engineering Catalog Section

Jovo

JOS. A. VOGEL CO.

Wilmington, Del. **St. Louis, Mo.**

VOGEL PATENTED

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DOMESTIC ENGINEERING

The Plumbing and Heating Weekly

Established 1889

Published Every Saturday by

Domestic Engineering Company

1900 Prairie Avenue, Chicago

Address all Correspondence to Chicago Office
Long Distance Telephone: Calumet 4680
New York Office, Room 906, 110 East 42nd Street
Telephone: Ashland 8111 and 8112
Cleveland Office, Builders' Exchange
Telephone: Main 4000
Philadelphia Office, Room 1507, Finance Bldg.
Telephone: Rittenhouse 2285
Pittsburgh Office, Room 604, Chamber of Commerce Bldg.
Bell Phone: Grant 8741-8745

Chicago, August 6, 1927
Vol. 120, No. 6 Whole No. 1808

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TERMS OF SUBSCRIPTION
United States and Possessions, $2.00 per year.
Current copies, 10c each. Back numbers, 25c each.
Canada, $2.00 per year. Foreign, $3.00 per year.

Entered as Second Class Matter on February 20, 1893, at the Post Office at Chicago, Illinois, Under the Act of March 3, 1879.

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Member of Audit Bureau of Circulations.
Member of Associated Business Papers, Inc.

More than 19,500 Copies of This Issue Are Being Printed and Distributed

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A Plumber with 100 Salesmen

EverHot AUTOMATIC WATER HEATER

A plumber with 100 salesmen properly trained in the art of selling could get a tremendous amount of business. But finding and managing 100 men capable of such a thing would be an immense undertaking—and the payroll would be enormous.

However, more than one plumber has employed EverHot Heaters with even greater success than that resulting from an organization of salesmen. EverHots not only sell other plumbing work and keep customers more than satisfied, but they pay a substantial profit to you instead of requiring money for their services. EverHot business, which is a big business in the water heater field, has been built up very largely from the word-of-mouth advertising of EverHot owners.

Try putting one or two or 100 EverHot Heaters to work for you and you'll find they'll do the job well.

Write us today and we will be glad to put our home office and our branch organization facilities at your disposal for increasing your *EverHot business.*

EverHot Heater Company

5211 Wesson Avenue :: **Detroit, Michigan**

THE A. I. U. CITADEL :: ***Columbus, Ohio***

Architect
C. HOWARD CRANE
Detroit

United States
ENAMELED WARE
For
BETTER BUILDINGS

No Chance Taken in Specifications

For this Monument to Architectural and Engineering Skill

Thus *United States* ENAMELED WARE as in other great buildings was specified for the owners' requirements.

Of all the luxuries and comforts which this fine housing will offer there will be *United States* ENAMELED WARE—to serve faithfully for many years to come.

United States Sanitary Mfg. Co.
PITTSBURGH, PA.

FINDING A TREASURE !!

Dole Dreamer Demon is thinking: These good fellows of mine have certainly come upon a treasure. Of course, now they're just impressed with that wonderful display box and the attractive wrapping of their find. The shiny finish on these things must be heavy nickel — must say that shape is good looking. I'd almost bet the treasure is valuable. More than likely it's as ingenious and substantial as it is attractive.

Come another month, I'll have one of the beauties cut open and we'll see what it's all about, should be interesting!

Automatic
All Metal

Dole

Non-adjustable
Thermostatic

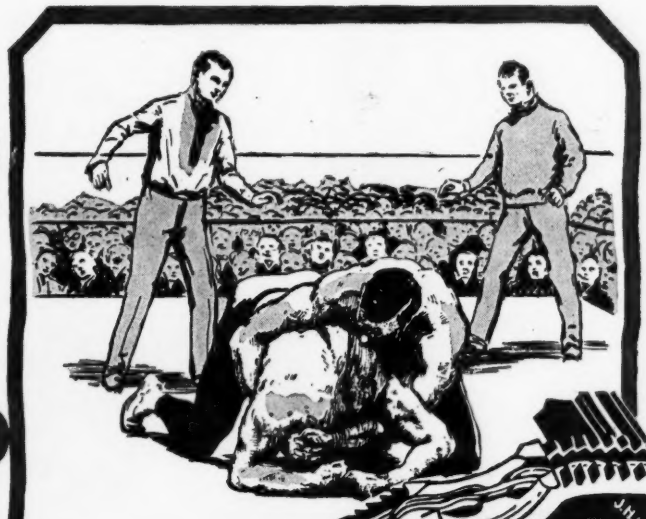
SYPHON AIR VALVE

The Dole Valve Company, 1913-33 Carroll Ave., Chicago, Ill.

AN organization which for 25 years has been guided by the spirit of service. Modern machinery—careful workmanship—co-operation with the plumbing trade—these have contributed largely to a steady and substantial growth. 25 years of progress have made us more determined to serve even better in the future than we have in the past.

THE FROST MANUFACTURING CO. KENOSHA, WISCONSIN

FAMOUS GRIPS



The Full-Nelson

An unusually effective grip feared by all wrestlers because difficult to break

The Full-Nelson and "Vulcans"

Like the Full-Nelson, the grip of the GENUINE Williams' Improved "Vulcan" Tongs is steady, unyielding, sure in its results. "Vulcans" bear an enviable reputation in the trade for dependable service and real gripping power. They are exceptionally popular with plumbers and pipefitters, whose work is often confined to close and crowded quarters.

Wholly made of wrought steel; double-ended, reversible jaws that double the life of the tool; proof-tested, CERTIFIED chain that swings from the center for use on either side of the jaws and assures absolute safety to the operator.

J. H. WILLIAMS & CO.

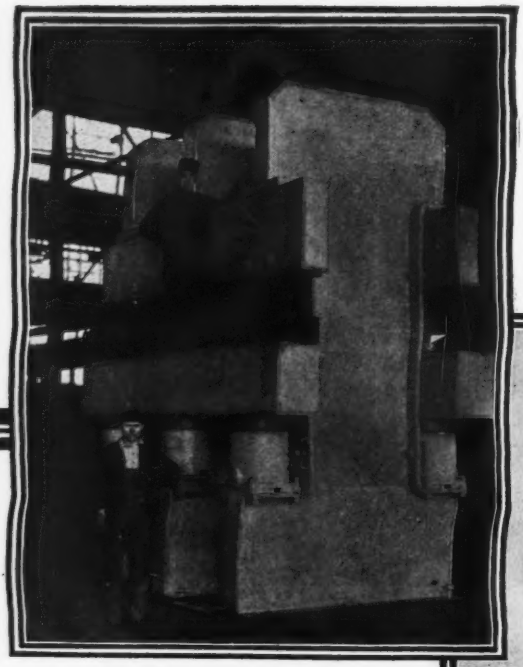
"The Wrench People"

New York **BUFFALO** **Chicago**

GENUINE WILLIAMS

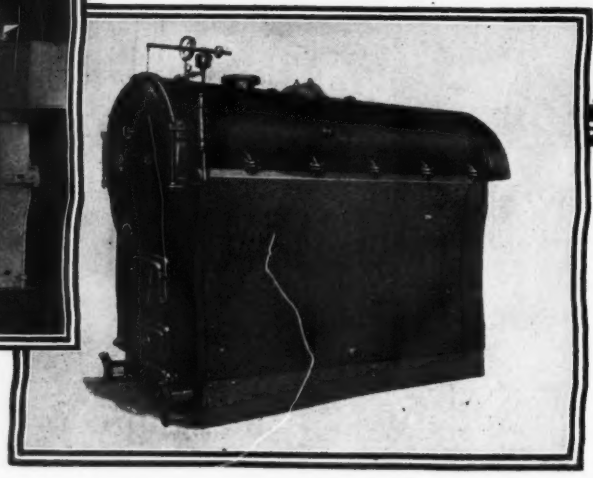
SUPERIOR DROP-FORGED TOOLS

"VULCAN" IMPROVED CHAIN PIPE TONGS



THIS Hydraulic Press is built for 1700 POUNDS pressure.

THIS Pacific Boiler is built for 15 POUNDS pressure.



Both Are Built of Steel —Electric Welded

This striking comparison gives some idea of the tremendous structural strength which is a feature of Pacific Steel Heating Boilers.

The gigantic press shown above — one of seven used at the Bristol and Waukegan factories in the manufacture of Pacific Boilers — weighs 70 tons and has a working capacity of 1000 tons. It operates at pressures as high as 1700 lbs. per square inch. The basic construction principle of this *powerful machine is exactly the same as that* embodied in Pacific Heating Boilers, operating at a maximum pressure of only 15 lbs.

In both cases, STEEL — electric welded insures rugged strength which is a vital factor for safety and dependability in the operation of boilers. This *is just one of the many reasons for the low main-*tenance costs of Pacific Boilers.

Write for complete information

Pacific Steel Heating Boilers employ the strongest type of construction yet developed; steel—electric welded.

STEEL HEATING BOILERS
PACIFIC
WAUKEGAN, ILL. BRISTOL, PA.
TRADE MARK REG. U.S. PAT. OFF.

PACIFIC

STEEL HEATING BOILERS

FACTORIES: WAUKEGAN, ILL., BRISTOL, PA.

One in a series of advertisements outlining the early development of plumbing ideas. A complete folio of this plumbing history will be sent on request.

THE WORLD'S FIRST PLUMBER

A HUNDRED thousand years ago our ape-like ancestors lived in tree tops or rude caves and when thirsty knelt down by brooks or streams to drink. Perhaps the more intelligent ones cupped hands to hold the refreshing drink. In time they learned to lead the water where they wanted it through trenches hand-made in mud or sand. A fallen hollow tree was probably the first water pipe. The man who first learned to guide the water from its source to his crude home was the forerunner of today's Master Plumber. It was only after thousands of years had passed that our nearer ancestors learned to build cities and to know the conveniences of water systems. The excavator's spade uncovers many interesting evidences of man's efforts to supply water for his own needs and that of his flocks and herds. Plumbing is in fact one of the most ancient of all crafts and its steady progress, through unnumbered ages, bringing comfort and health to countless millions, is something for which we all may be proud.

Today brings to the plumber greater opportunities and bigger responsibilities than ever before. Back of him stands huge manufacturing plants humming with activity to make his full measure of service possible.

In the city of Bridgeport, Conn., brass pipe, flush valves and tubular plumbing goods, made to uphold the best traditions of your ancient and honorable industry, are available through our representative in your vicinity.

"Bridgeport" BRASS TRADE MARK CO.
Plumbing Goods
WE MAKE
Plumrite Brass Pipe
Traps & Tank Bends
Basin & Bath Supplies
Tank Supplies & Straight Wastes
Patented Sink Plugs
P.O. Plugs & Flanges
Flat Sink Strainers
Sink Connections
Connec'd Waste & Overflow
Flush Valves and Fittings

BRIDGEPORT BRASS

PIPE FITTINGS FLUSH VALVES TUBULAR PLUMBING GOODS

Plumrite Plumrite Plumrite Plumrite

Bridgeport Brass Co., Bridgeport, Conn. - New York - Philadelphia - Chicago - Detroit - Cleveland

The Better Union~

AN EXCEL UNION

It's up to you to decide—you're the judge when it comes to the matter of unions—

But we would like to submit the reasons why we believe the **EXCEL** Union to be the better union.

The best materials that money can buy go into the making of **EXCEL** Unions—the best air-refined malleable iron for the body and the purest brass for the seat.

Add to those materials the most careful manufacturing process and an inspection and test for the finished product that is most exacting and you have the reason why **EXCEL** Unions are preferred.

Your jobber will be able to supply you with **EXCEL** Unions at any time. Order them and *give them a trial—they'll live up to every* demand for strength and long life that you will make of them.

EXCEL Unions meet U. S. Government Specifications as approved by the U. S. Bureau of Standards, also listed as Standard by Underwriters Laboratories.

From your jobber

PROVIDENCE FITTINGS COMPANY

7 Water Street Boston, Mass.

New York Office: 210 E. 45th Street

EXCEL UNIONS

A Letter from Harry G. Nye

August 6, 1927

To the Plumbers and Steamfitters
of the U. S. A.

Fellow Citizens:

We took the dog up to the lake, and about all he did the first day was to bark at the crows. They annoyed him exceedingly. A crow can indulge in more caws with less cause than any other animal I know of. A crow is the only bird that barks—except a man with a grouch.

But the dog soon learned that barking back at a crow didn't get him anything, but a sore throat. And a man soon learns that barking back at a grouch pays just about as well. There is this to be said in favor of the crow: he was born that way, and doesn't know any better.

Another thing in favor of the crow is that you can shoot the crow, but there is no open season for grouches, although there ought to be. In some sections there is a bounty on crows, and I don't see any reason why there shouldn't be on crabs, of the human variety.

But there isn't, and so we have to think of something different; and the next best thing to do with a grouch is to leave him alone. If you don't let him take his grouch out on you, he will have to take it out on himself; and there is nothing as painful as to have a grouch and no place to put it.

There is nothing that makes a grouch as mad as a nice day and a pleasant smile. The way to get his goat is to be as gentle with him as a lamb. If he can't get sore at you there is nobody for him to get sore at but himself. Maybe if he gets sore enough he will begin to heal.

Briggs says there is one in every office, so it is not surprising if there is one now and then in a plumbing shop. But let him do his own cussing. The dog discovered that if he didn't bark back at a crow the crow got discouraged and quit. It works about the same way with a grouch.

And don't forget the fact that the grouch, at that, may have some good reason. Maybe his wife's brother's family has come on a visit. Maybe he has just got his tax-bill. Maybe his liver or his carburetor is out of order. MAYBE THE BOSS DOESN'T BUY NYE TOOLS FOR HIM TO USE.

If that's all it is, the rest is easy. Nye tools work so fast, so smoothly, that they make a grouch give 22 quarts a day of the milk of human kindness.

Yours for pleasanter plumbing, *Harry G. Nye*

Copyright 1927 by Harry G. Nye
All rights reserved.

OTHERWISE KNOWN AS

THE NYE TOOL & MACHINE WORKS

MANUFACTURERS OF HIGH GRADE PIPE TOOLS

4120-30 Fullerton Avenue Chicago, Illinois

Nye Vise Stands with Pipe Bender

Equipped with or without Nye Vises. Can be drilled for any size vise specified. Bender can be used with open side vise or bench vise.

With Legs and No. 10 Self-Locking Vise, Net each.....$15.35

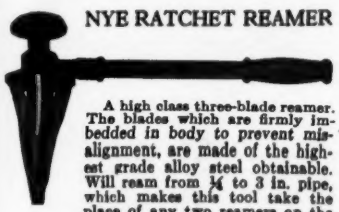
With Legs, but without Vises, Net each..... 12.00

NYE No. 51—Chain Vise
Capacity ⅛ to 2½ inches

A handy, compact little vise, possessing maximum strength, while of minimum weight. Easily carried in tool kit. Equipped with standard jaws. Having features not found in similar vises, the double lever tightening device being above the bench, rather than below, insuring faster and smoother operation.

Net Price - $4.67
Absolutely Guaranteed

NYE RATCHET REAMER



A high class three-blade reamer. The blades which are firmly imbedded in body to prevent misalignment, are made of the highest grade alloy steel obtainable. Will ream from ¼ to 3 in. pipe, which makes this tool take the place of any two reamers on the market.
Net Price.....$6.00

Nye Bit Brace Reamer

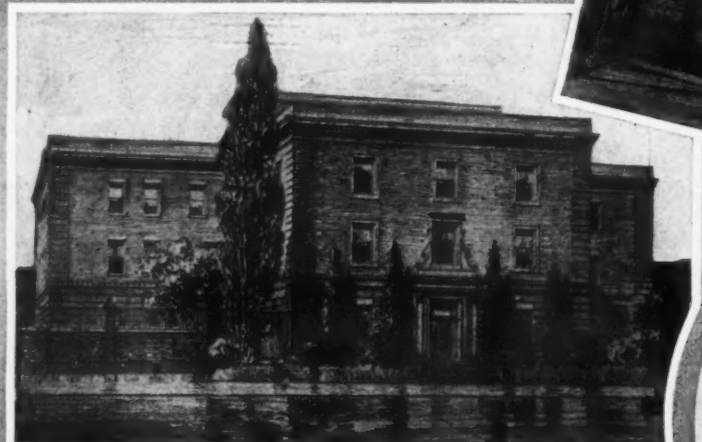
Reams from ⅛ to 1¼ inches inclusive

This reamer is made with a tapered shank which will fit any standard bit brace. Drop forged from the highest grade alloy tool steel and tempered in oil. A very handy little tool having a wider range than any other similar reamer.

List Price - - - $1.17
ABSOLUTELY GUARANTEED

Cook County Hospital selected MILVACO HEATING EQUIPMENT

for over a quarter of a century manufacturers of Standard Valves and Heating Specialties



Milvaco Packless Radiator Valve.

MILVACO Packless Radiator Valves were chosen by the builders of the above pictured Cook County Hospital buildings because they knew thru experience that these time tested valves would be functioning 20 years from now with the same efficiency that they function today.

{ Eric E. Hall, *Architect* — H. A. Durr & Co., *Mechanical Engineers* — Great Lakes Construction Co., *General Contractors* — Kinzie Engineering Co., *Heating Contractors.* }

HEATING SPECIALTIES:
Milvaco Traps, Dole Milvaco Packless Valves —all types. Air Vents, Air Eliminators, Drip Traps, Blast Traps, Direct Return Traps.

STANDARD VALVES:
Packed Type Radiator Valves, Gate Valves, Globe Valves, Angle Valves, Check Valves.

MILWAUKEE VALVE CO. MILWAUKEE, WIS.

"This is the most practical method of controlling truck expense I have found in 17 years' study of this problem."
M. L. Pulcher, President
Federal Motor Truck Company

"... and now we make this offer, without obligation to any owner of any truck anywhere."—

M. L. Pulcher
President

WE will place in the hands of any owner of any truck—anywhere—without charge—the Federal System of Truck Expense Control.

This system can be applied to any plan, method or system now in use without the changing of a single blank or ledger form. It has been presented to—and adopted by—some of the largest business concerns in America.

The Federal System of Truck Expense Control makes dead figures "come alive" and go to work for you. It furnishes you—automatically and daily—the means of exercising over your transportation expenses the same ***control*** you apply to other departments of your business.

We offer the Federal System of Truck Expense Control to any truck owner as a contribution to an industry in which we have been engaged for the past 17 years. We believe that its use will quickly result in the cutting of hauling costs and in reducing the waste of time, effort and materials.

Send for your Copy

Write for this simple plan and our detailed explanation of its use. It doesn't matter how many trucks you are using or how few—it doesn't matter ***what*** trucks you are using. Simply fill in and mail the coupon—or just attach it to your letter-head. We will send you the Federal System of Truck Expense Control. Then you can put it to work saving money.

(120)

FEDERAL MOTOR TRUCK COMPANY
5800 Federal Ave. Detroit, Michigan

FEDERAL
ALL SIZES **TRUCKS** FOURS & SIXES

Federal Motor Truck Co.
5800 Federal Ave., Detroit, Mich.

Please send me, *without any obligation whatever on my part*, my copy of "The Federal System of Truck Expense Control."

Firm Name.....

Attention of.....

Street Address

City and State.....

The Columbia Presbyterian Medical Center
New York City
Architect: James Gamble Rogers
Engineer: Werner Nygren
General Contractors: Hare Ellitz & Son

TOWERS OF SERVICE

RISING in majestic triumph on a beautiful bluff of the Nation's greatest city, spreading out its wings in all their grandeur, this magnificent structure typifies in every way the great cause which it represents—service to mankind!

What more impressive ideal could be manifested materially by man—from the minds of far-famed architects, expert engineers and promoters of service to humanity. Here, new wonders in medical cures will be discovered, science developed—thousands and thousands will be cured!

In the visualization of such a housing and in its actual construction it is significant the kind of equipment absolutely necessary—quality of the highest degree, and that alone, could be considered.

Thus, as in many other of America's finest buildings, *"NATIONAL" was selected for the major* pipe tonnage, another proof of "NATIONAL" dependability—the only pipe made by the Scale Free Process.

NATIONAL TUBE COMPANY

Frick Building, Pittsburgh, Pa.

DISTRICT SALES OFFICES IN THE LARGER CITIES

AERO

The Radiator Vogue

A Radiator By Any Other Name IS NOT Just As Good

That the Aero Radiator is paid the compliment of imitation is striking evidence of its leadership.

That the imitations are many, but all based on the same fundamental design, has led to a general application of the name Aero.

Any new type radiator is therefore an Aero type radiator, ***except for these things:***

BEAUTY—No radiator has yet approached the genuine Aero in appearance.

WARMTH—*The Aero is a radiator rated by* a recognized disinterested authority. Aero Radiators were rated by Cornell University, based upon exhaustive tests made by them throughout a period of more than a year.

TIME-TESTED—No other new (Aero) type radiator has been thoroughly tried out on actual installations of every character. Genuine Aero Radiators are the only new type Radiators that have years of successful heating accomplishments behind them—

So while a radiator may look somewhat like the Aero or it may be named somewhat like the Aero, it is not an Aero Radiator and not just as good.

Genuine Aero Radiators offer the utmost in Beauty and Warmth on installations everywhere.

If you want more Beauty, more Warmth, more Profit with less trouble, less adjustment and no comebacks, you want genuine AERO RADIATORS—a radiator by any other name *is not* just as good.

Literature and discount sheets on request.

NATIONAL RADIATOR COMPANY
JOHNSTOWN, PA.
PLANTS: Johnstown, Pa., New Castle, Pa., Trenton, N. J.
BRANCH OFFICES: New York, Philadelphia, Baltimore, Washington, Richmond, Pittsburgh, Cincinnati, Cleveland, Chicago.

BEAUTY *and* WARMTH *with*

AERO RADIATORS

The COLUMBIA-PRESBYTERIAN MEDICAL CENTER
NEW YORK CITY
Architect: James Gamble Rogers
Engineer: Werner Nygren
General Contractors: Marc Eidlitz & Son

TOWERS OF SERVICE

RISING in majestic triumph on a beautiful bluff of the Nation's greatest city, spreading out its wings in all their grandeur, this magnificent structure typifies in every way the great cause which it represents—service to mankind!

What more impressive ideal could be manifested materially by man—from the minds of far-famed *architects, expert engineers and promoters of service* to humanity. Here, new wonders in medical cures will be discovered, science developed—thousands and thousands will be cured!

In the visualization of such a housing and in its actual construction it is significant the kind of *equipment absolutely necessary*—quality of the highest degree, and that alone, could be considered.

Thus, as in many other of America's finest buildings, "NATIONAL" was selected for the major pipe tonnage, another proof of "NATIONAL" dependability—the only pipe made by the Scale *Free Process.*

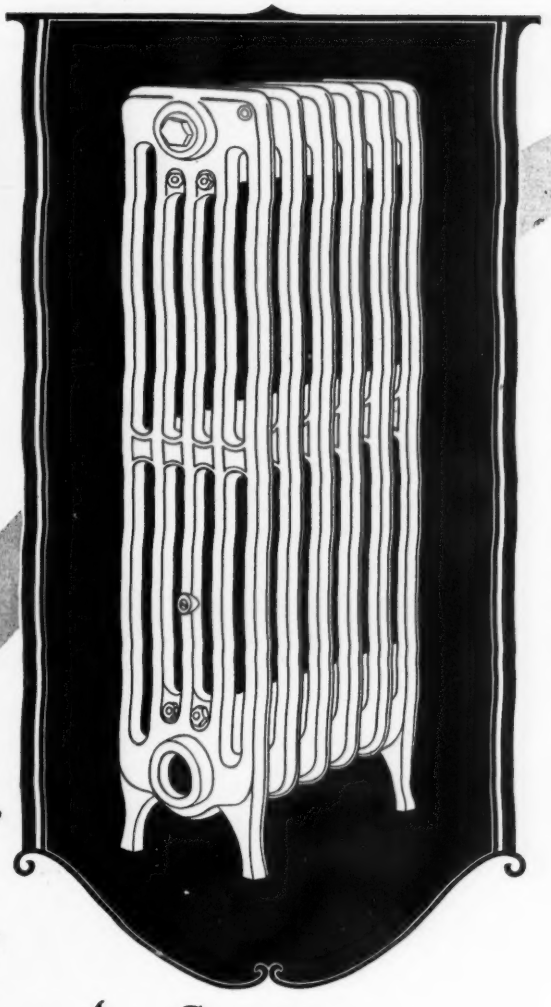
NATIONAL TUBE COMPANY

Frick Building, Pittsburgh, Pa.

DISTRICT SALES OFFICES IN THE LARGER CITIES

AERO

The Radiator Vogue



A Radiator By Any Other Name IS NOT Just As Good

That the Aero Radiator is paid the compliment of imitation is striking evidence of its leadership.

That the imitations are many, but all based on the same fundamental design, has led to a general application of the name Aero.

Any new type radiator is therefore an Aero type radiator, *except for these things:*

BEAUTY—No radiator has yet approached the genuine Aero in appearance.

WARMTH—The Aero is a radiator rated by a recognized disinterested authority. Aero Radiators were rated by Cornell University, based upon exhaustive tests made by them throughout a period of more than a year.

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So while a radiator may look somewhat like the Aero or it may be named somewhat like the Aero, it is not an Aero Radiator and not just as good.

Genuine Aero Radiators offer the utmost in Beauty and Warmth on installations everywhere.

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BRANCH OFFICES: New York, Philadelphia, Baltimore, Washington, Richmond, Pittsburgh, Cincinnati, Cleveland, Chicago.

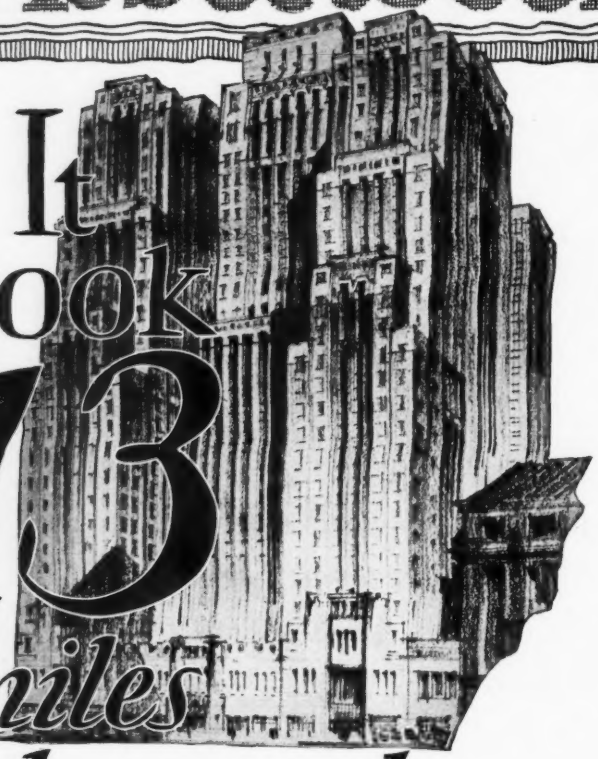
BEAUTY and WARMTH with

AERO RADIATORS

Selling Asbestocel

No. 33

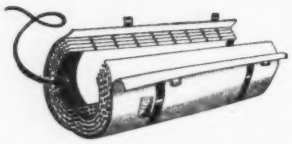
This series of advertisements gives facts about fuel waste, suggestions on how to execute the job as well as valuable selling helps. You should have a copy of the book "How to Sell and Apply Improved Asbestocel" shown below. Send for one.



It took 13 miles of Asbestocel

WHEN you're talking pipe covering to a customer tell him about the largest installation of Asbestocel ever made. He'll be impressed with the fact that it took 13 miles of insulation to cover the heating pipes of the Graybar building in New York City—and he'll be interested to learn that Improved Asbestocel was used.

Look for the Red Band



Selling **Asbestocel is a profitable business**

JOHNS-MANVILLE CORPORATION, MADISON AVENUE AT 41ST STREET, NEW YORK CITY
BRANCHES IN ALL LARGE CITIES. FOR CANADA: CANADIAN JOHNS-MANVILLE CO., LTD., TORONTO

SUPPORTING MEMBER

JOHNS-MANVILLE Improved Asbestocel SAVES COAL

ONLY THE BARBER-GREENE HAS THE VERTICAL DIGGING BOOM AND THE OVERLOAD RELEASE

Tearing Through—To New Ditching Records

TURN this Barber-Greene loose wherever there is digging to do—and watch it go. The vertical boom dives straight into the ground, full depth. Then it starts tearing up the earth for yard after yard of clean-cut trench.

If an obstruction bars the way, this digging demon doesn't plunge into it blindly and damage the machinery. The overload release takes care of that. The vertical boom can either jump over or keep picking until the obstruction is removed.

This nimbleness, plus the mile-a-day speed on shallow pipe line trench and the versatility that turns service laterals into a source of profit are reasons enough why Barber-Greene Ditchers topped all ditcher sales records last year.

"Ditching Snapshots and Records" is full of interesting pictures that show Barber-Greenes digging everything that's "diggable." And pages are devoted to cold cost figures that show how Barber-Greenes cut the cost of digging to new low records. Send for your copy today.

BARBER-GREENE COMPANY, 408 W. PARK AVE., AURORA, ILLINOIS

Barber-Greene

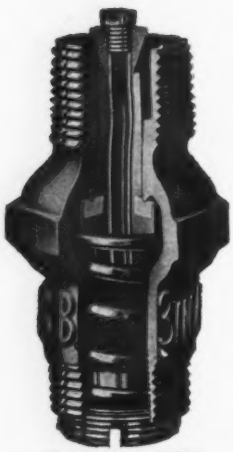
Barber-Greene Ditcher

Representatives in 50 Cities

DISC FEED LOADERS VERTICAL BOOM DITCHERS
STANDARDIZED PORTABLE AND PERMANENT BELT CONVEYORS
SNOW LOADERS CAR UNLOADERS COAL LOADERS

YOU ARE INDICTED

-by Public Opinion!



SECTIONAL VIEW
B. B. 3 in 1 Temperature-Pressure-Vacuum Valve

—if the range boilers you install are not protected against explosions.

High temperature unless controlled is far more destructive than dynamite and many lives have been lost as well as homes destroyed thru neglect of the plumber in not installing the all-important boiler relief valve.

B. B. Boiler Relief Valves are noted for their dependability of performance under most exacting conditions and simplicity of construction.

Ask your jobber or write us!

SECTIONAL VIEW
B. B. No. 20 Temperature-Pressure Valve

Boston Brass Company

Waltham :: Mass.

"$100 puts me in your shop—

then I pay back more than $1,000 a year profit!"

Here's the sensible way to buy a profit-making machine—

Out of the $4 or $5 a day extra profit that this machine makes you, take $1 a day, and *buy the* WILLIE WILLIAMS *out of its own earnings!*

The extra profits that the WILLIE WILLIAMS makes, while you are buying it, will run four to five times what you are paying for it.

Cuts, threads and reams pipe 3 times faster

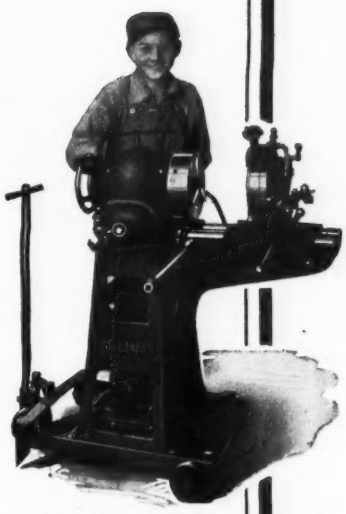
One man and a WILLIE WILLIAMS can easily do the work of three men, on cutting, threading, and reaming. The WILLIE saves two-thirds of your labor cost on such work.

Plumbers and steamfitters who keep this machine reasonably busy, have been able to show a clear profit of more than $1000 the first year—over and above the full cost of the machine.

This isn't just somebody's guess, but is based on the actual savings reported by other plumbers and steamfitters. For instance one WILLIE WILLIAMS user writes: "Our WILLIE WILLIAMS will do the work of four men—my boys now do the cutting. The WILLIE WILLIAMS has more than paid for itself in labor saved."

Mail back this coupon for the facts—or ask your jobber.

Williams Tool Corporation
Erie, Pa.



A real machine tool—

Built to the same high standard as the big threading machines in the Williams line. It does accurate work; cuts threads which make tight joints, which your men don't have to go back and fix up.

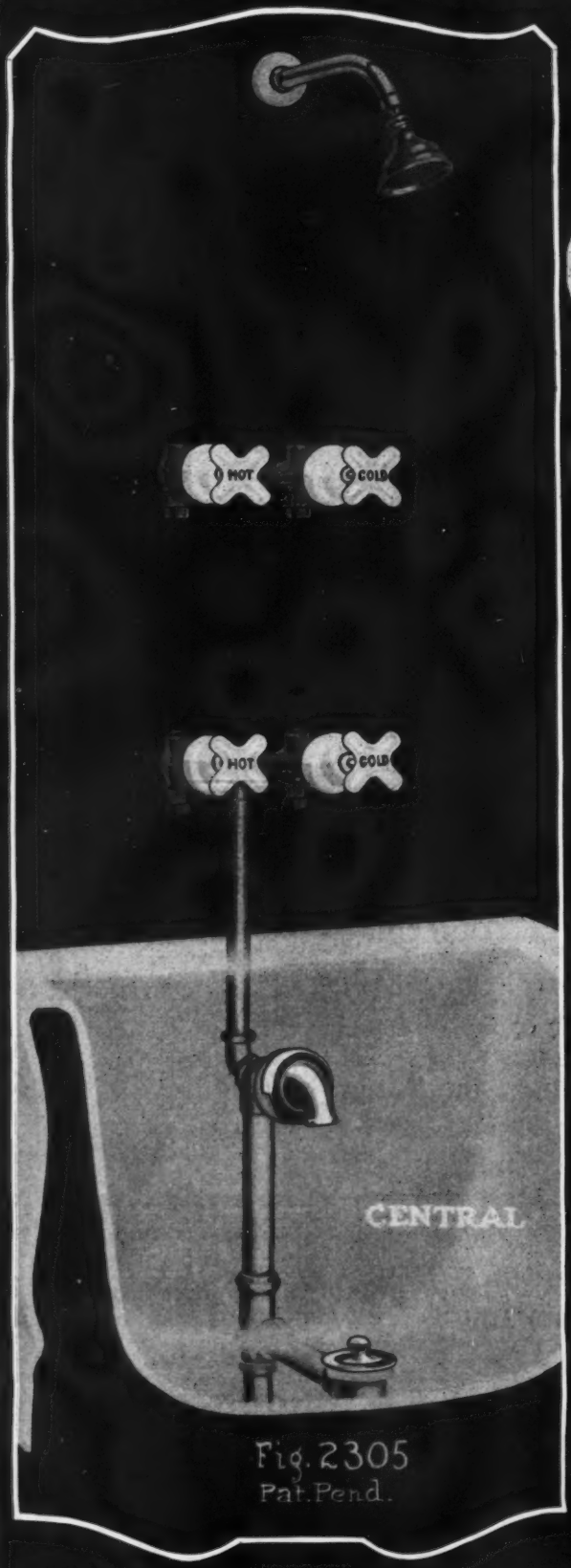
WILLIAMS TOOL CORPORATION, Erie, Pa.
Gentlemen:
Please tell me the details about your new sales plan on the WILLIE WILLIAMS.

Name.....

Address.....

WILLIE WILLIAMS

PORTABLE POWER PIPE MACHINE



Now!

CENTRALFLO Tub Supply Combinations

A STRIKING new combination, ideal for use instead of standing waste.

Shown here with the new CENTRALIFT Drain, which eliminates chain and rubber stopper.

This through-the-tub spout has integral concealed overflow.

No panel back of wall.

Nothing to get out of order.

Lower installation cost.

Made with regular bath valves or diverter.

See it at your Wholesaler's.

CENTRAL
BRASS MFG. CO.
CLEVELAND

Between Ourselves

The man who is so busy that he does not have time to read his trade paper is like the man who was so busy chopping wood that he did not have time to sharpen his axe

BACK TO NATURE CULTS ARE CONtinually attacking our modern civilization as being too scientific, and our lives, therefore, as being too protected and sheltered. They always talk of taking nature as it was given to us, and not trying to improve it any. These radicals on the subject of living are not at all convinced by the actual proof of the fact that our death rate is lower, that we have less sickness, that the infant mortality rate is lower and that life is much more comfortable than it ever was when people lived close to the soil. They blind themselves to these facts, and continue to rail about the shallowness of our civilization. As a whole, however, the American public is prone to pay little attention to that group of people, and is always ready and eager to hear the results of any research work which may be going on to improve our living conditions. Those of us who have followed these results have heard from a number of sources that plain water at room temperature is more healthful to drink than cooled water. Science in the form of the American Medical Association has conducted exhaustive tests on this question and has found that actually, water has to be cooled to at least 50 degrees to make it palatable, and has also found that a temperature of more than 55 degrees is actually harmful to the human system. This week we are publishing an article by A. E. Smith, called "Drinking Water Temperature." Even if you do not feel that there is much of a chance of your getting a job to install drinking water systems in some industrial plant, the information will be of great value to you in showing you the best means of getting the utmost efficiency out of your own workmen.

Do You Know—

1.—What was the "United Bunch of Sheep"?

2.—What can be done to prevent boiler sections from cracking?

3.—In how many cities have N. A. M. P. conventions been held?

4.—How many schools are there in the U. S. for instruction in plumbing and heating?

5.—How many locals has the Heating & Piping Contractors National Association?

6.—Where was the first "Master Plumbers' Week" held?

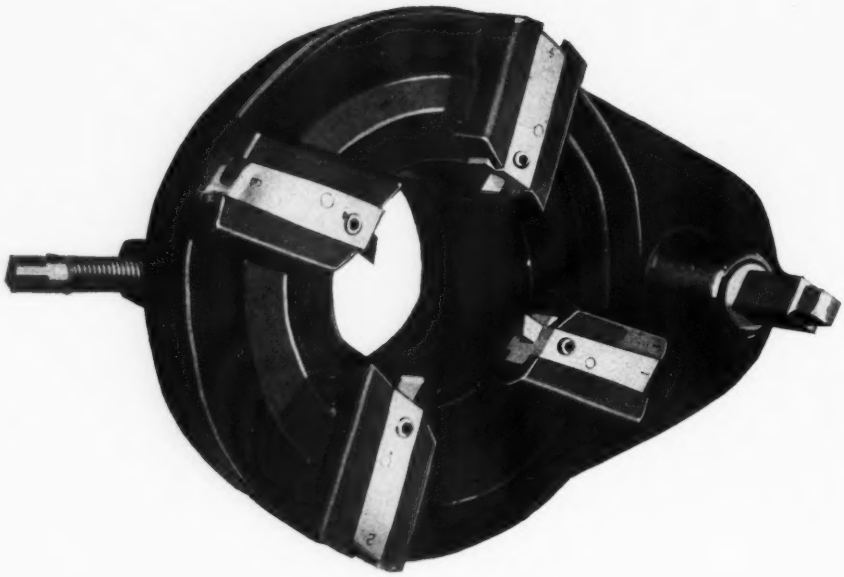
Answers will be found on page 94.

WHEN A "LOCAL LAD" LEAVES THE old home town, and makes a success in another city, he is known as a "big man" by his former friends. Whether he really is or not, no one is in a position to know. But let a man stay at home and work his way to success, and nearly everyone in that city will know whether he is actually doing it, or whether idle rumor has helped his standing. This week Milt Marvels writes of a master plumber who stayed at home, and made a whale of a success of his business. The Herman Goldner Co., Inc., of Philadelphia, is the contractor referred to and Milt tells how he put his business across by sound business principles and good merchandising efforts.

A WELL-KNOWN DAILY NEWSPAPER IN one of our larger cities has opened its columns to gather a few vital statistics concerning the fallacy of the proverbial "lost collar button." Subscribers write continually to tell how long they have kept some of their own collar buttons. Of course, we have a right to question the value of such information to our comfort or knowledge, however, there seem to be some people in the world who consider this of utmost importance; after all, though, collar buttons aren't a very expensive item! "Your Weekly" is also opening its columns for a problem, but it is one which we feel sure will contribute more to the world's knowledge than that of collar button statistics. A heating contractor ran against a snag, and asked us to help him out. Two well-known heating engineers gave widely varied answers to this problem, so we felt that the problem was one which might well be a subject of considerable discussion. It appears under the name of "An Obscure Heating Problem." Send in a suggestion as to how it might better be done.

ALMOST WITHOUT COMment we are quoting a letter received recently from John Heinkel, vice president of the Blake Specialty Co., Rock Island, Ill. Mr. Heinkel writes, "I would state in reviewing your paper following closely on the heels of the Minneapolis convention, that I was very much surprised to note so complete a report and so many illustrations of manufacturers' booths, and photographs of delegates and manufacturers, etc. To my mind, this was a masterpiece of work, and on a par with the activity of any of our great metropolitan dailies. I want to congratulate you most sincerely."

Your Editor



AT LAST!

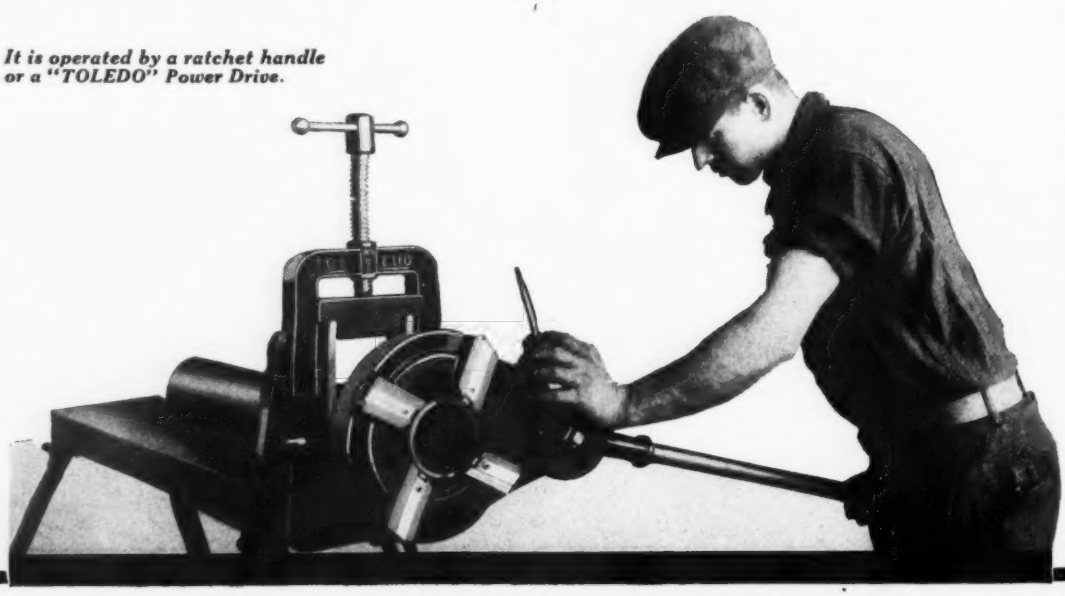
THE PERFECT PIPE CUTTER, AND OF COURSE IT'S A "TOLEDO"

Here at last is the perfect 2-in. to 4-in. pipe cutter that eliminates all pipe cutting problems. Cuts rapidly with a straight, square-end cut without burr. Compact, easy to handle, and weighs but 65 lbs. Knives fed automatically. Very simple to operate. Net price $60.00 f.o.b. Toledo.

It's the pipe cutter you need for your work. Drop us a postcard for complete details.

THE TOLEDO PIPE THREADING MACHINE CO.
TOLEDO, OHIO NEW YORK OFFICE, 72 LAFAYETTE ST.

It is operated by a ratchet handle or a "TOLEDO" Power Drive.



DOMESTIC ENGINEERING

Vol. 120, No. 6 Whole No. 1808 — The Plumbing and Heating Weekly — Chicago, Illinois, August 6, 1927

Idea-Seconds

We are all busy doing the same thing—giving what we can to life and taking what we can out of life, our efforts being directed by judgment, conscience, laws and what not. We all have the same thing with which to do this—time. As we make the most and best use of our time, we do the best job of giving and taking.

All of which is in introduction of the subject, time, in its relation to business paper reading, and of how "Domestic Engineering" considers time in publishing. It is not the timeliness of news, market reports, articles, etc., which we have in mind now. It is the time of the reader. Our function is to gather and spread information, to promote the interests and aid the development of the plumbing and heating industry and to provide a clearing house for trade ideas and business possibilities. And our job is to present this information and these ideas in such a way that our readers can get them in the largest possible number and the shortest space of time.

We have a group of readers who are paying their journeymen so much per hour. Time is the factor there. We have a group of readers who are supervising installations, soliciting new business, buying, collecting, etc., etc. Time is a big factor there. And this group of readers wants information and ideas and has so much time to spend getting them.

In the arrangement of our paper, the selection of type and the writing of articles, therefore, we work with that thought in mind. It might be said that our unit of measurement is "idea-seconds," just as "foot-pounds," "horse power," "square feet" and others are units of measurement. An article which develops the greatest number of idea-seconds is the best article—one from which the reader can absorb the greatest number of ideas in a given time. It may be interesting to readers of "Domestic Engineering" to know that we consider the idea-seconds just as the master plumber or heating contractor considers the amount of work a journeyman can do for a dollar. If we are successful, say, in getting ten worth while ideas to a reader in a half hour, we have done something in comparison to the accomplishment of providing five ideas in a half hour.

That is why we are able to number among our readers men who are not "too busy to read." We trade ideas for their time. In doing so, we conserve their time and help them make the most and best use of it. It follows that among our readers are those in the plumbing and heating industry who are doing the best job of giving and taking.

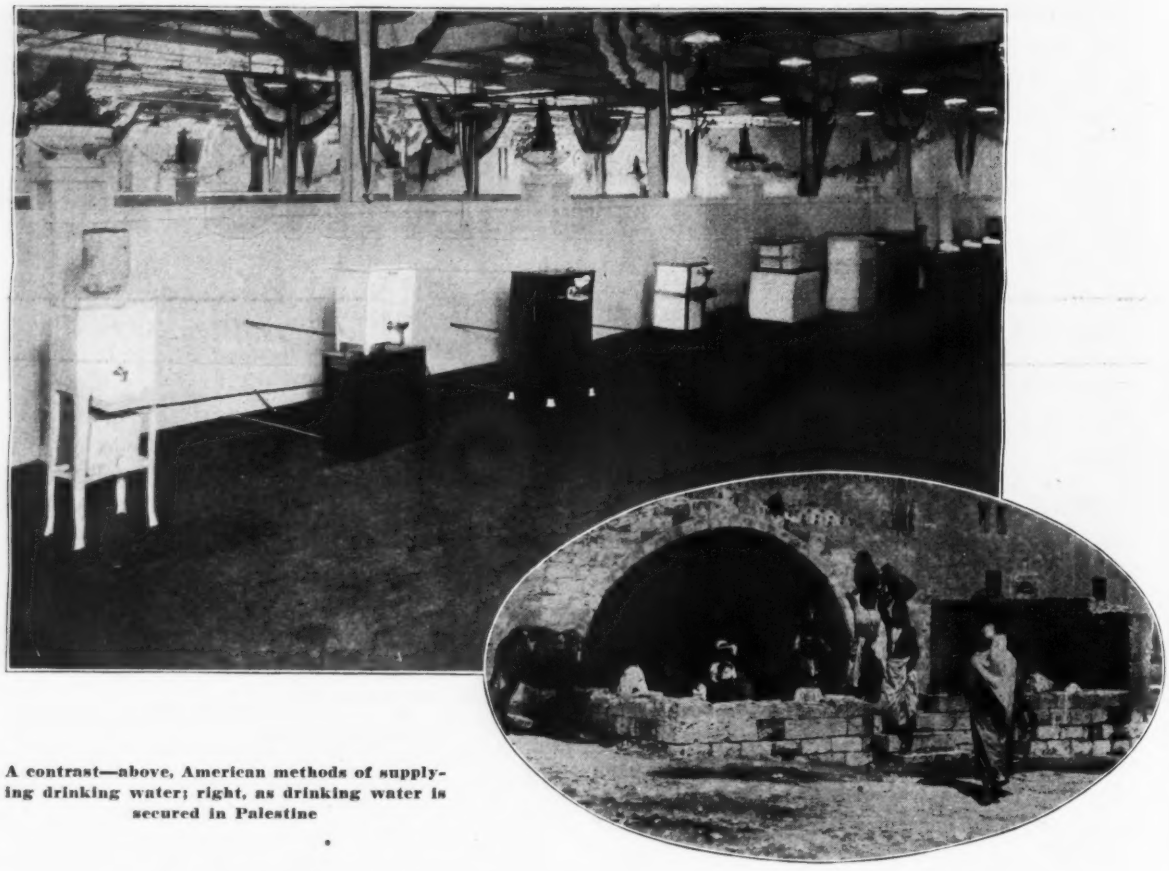
The Hand-Out

There is a certain class of people who roam the country roads, fight shy of all work and live on the "hand-outs" of friendly, charitable folks. They do not call for much respect. They never get anywhere. They do not care whether they do or not. Now, in our application to the plumbing and heating business of this method of doing things, there is, naturally, no intention of direct comparison. But in this business aren't there too many contractors, salesmen, wholesalers and manufacturers living on hand-outs? The business they get is handed to them. They don't dig it up. They make little or no effort to create. Such people now are saying that business is quiet. Business is not quiet. There just aren't so many hand-outs.

More Building Figures

Recently we commented editorially on the vitality of building operations, as indicated by F. W. Dodge Corporation's report that June construction contracts broke all records and brought the total building volume for the year two per cent ahead of that for the same period of last year. The national monthly building survey prepared by S. W. Straus & Co., now before us, points out that "the beginning of the second half of the year finds building activities throughout the United States on a steady down grade."

The Dodge reports are on contracts actually awarded and started. They include, however, engineering projects, which have been large this year. The Straus review covers building permits only. One is an index of the past; the other is an index of the future. Both are of decided value to the man who follows market trends, but each must be weighed in its relation to other things. According to these two authorities, more work has been started this year than was started last year; less work is planned ahead than was the case last year. One determination which neither figure should shake is to make the most of the present.



A contrast—above, American methods of supplying drinking water; right, as drinking water is secured in Palestine

Drinking Water Temperature

By A. E. SMITH

WATER does not perform its full function unless it refreshes and stimulates. Warm water can not do this. As so aptly remarked by Dr. Donald V. Baker of Lever Brothers Co., Cambridge, Mass.: "The idea of tepid water drinking is not even borne out by the habits of animals, that seek cooling streams. I wonder if the advocates of warm water heat their drinking water in winter."

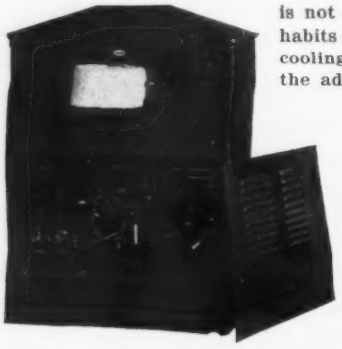


Fig. 1.—This industrial type of water cooler is suitable for such uses as in steel mills. Notice insulated compressor compartment with shutters stored in space below. Receptor is also insulated against frost. Using flooded system and water cooled compressor

If it were just a question of buying ice put in the water, the problem would be quite expensive but not serious. Unfortunately, ice only complicates matters. Ice costs money, a great deal of money, even if all of the ice that is bought is used. In actual practice fully one-third of the ice bought is wasted by shrinkage before reaching the cooler. There is also a great waste in cutting ice.

A very large steel mill in the Pittsburgh district has for many years paid an average of fifteen thousand dollars a year for ice to be used in drinking water, but this did not solve the problem. Men had to be paid to distribute this ice to more than two hundred and fifty coolers over many acres of floor space. Naturally much of this expensive ice was wasted. When first put into the cooler, water was very cold for a time, but became warmer and warmer as the day advanced.

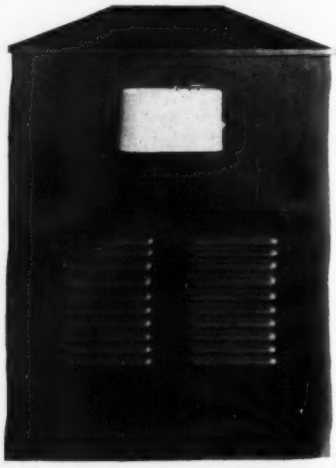


Fig. 1.—Same as cut at left, closed up

Now it happens that nearly all physicians who have made a study of this question agree that, while

warm water is bad, ice water is much worse. Water that is too cold, when served to men who work in high temperatures, causes intestinal disturbances, colic and loss of time on account of sickness. A large labor turnover and great expense is the result.

This will indicate how critical the temperature of drinking water may be and to what expense large industrial plants are put in solving the problem.

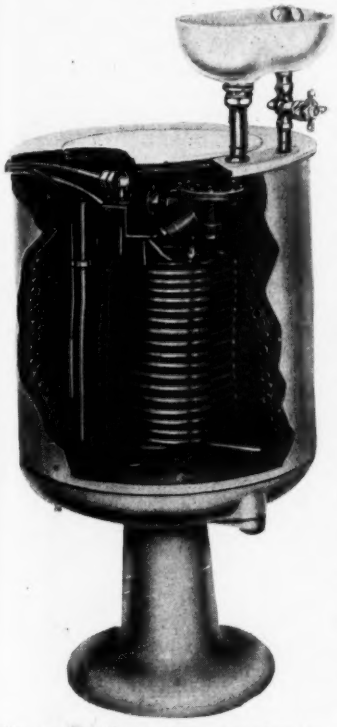


Fig. 2.—Sectional view, showing interior of cooler designed for the expansion system

Much care has been taken to get the opinions of every available authority, and the avidity with which this subject has been discussed by more than one hundred and fifty physicians engaged in industrial welfare work is illuminating, to say the least. The consensus, however, can be best expressed through the following taken from the Journal of the American Medical Association, and as an answer to the question:

What is the effect of cold water on the general health of persons engaged in hard labor?

When large quantities of chilled water are ingested, particularly when high temperatures and relatively low humidities exist, industrial workers are apt to develop a gastro-enteritis manifest through diarrhea and cramping pains. At times the condition simulates heat exhaustion. This condition has greater prevalence in industry only because hard physical exertion leads to greater demands for water intake. Improper drinking facilities in industry favor the intake of large quantities at one time, rather than the intake of small quantities at frequent intervals—a practice that is more desirable. Under conditions of high temperature and relatively low humidity, persons engaged in ordinary activities may require six quarts of fluid in a twenty-four-hour period. Under the same conditions of temperature and humidity, the industrial worker engaged in hard labor, such as in a steel mill, will frequently ingest ten quarts of fluid in a twenty-four-hour period.

To avoid the harmful effects of chilled water, industrial drinking water supplies should be maintained at a temperature in summer of from fifty to fifty-five degrees Fahrenheit. Colder water favors the development of the conditions described above. Warmer water than fifty-five degrees Fahrenheit is so lacking in palatability as to be ingested in insufficient quantities properly to offset losses of water from the body.

The exact mechanism of the injury from highly chilled water is uncertain. Apparently a hypermotility of the gastro-intestinal tract develops as a result of an inbalance of the dual nervous mechanisms regulating gastro-intestinal functions.

HOW MAY DRINKING WATER TEMPERATURES BE MAINTAINED?

YOU will note at once that the vital message in the above communication is to drink plenty of water at a temperature of fifty to fifty-five degrees Fahrenheit. How is it possible to maintain drinking water at just the correct temperature? This question has puzzled industrial engineers and caused their companies to spend many thousands of dollars.

Many persons who have acquired an artificial taste for ice water will maintain that water at fifty-five degrees is too warm, but this is purely a matter of individual preference.

Close observers state that, when a person is warm and room temperatures are high, a drink of water at fifty-five degrees, or even sixty degrees Fahrenheit, tastes very cool and refreshing. We know that many persons consider a drink from a deep well or spring to give the maximum satisfaction. If the person be cool and the room temperature low, then water at fifty-five degrees Fahrenheit may seem a trifle flat. Observers state, however, that few people complain when temperatures in drinking water vary from five to ten degrees, provided the water is reasonably cool.

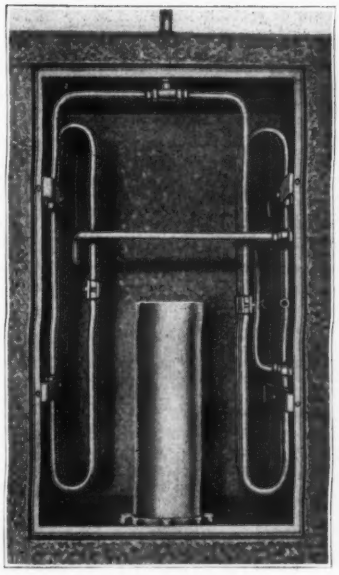


Fig. 3.—Plan view looking down into interior of cooler designed for the flooded system

To obtain water at correct temperatures has always seemed worth while to owners of steel mills and similar factories. Many have installed expensive central ammonia plants for cooling water, which have given satisfaction.

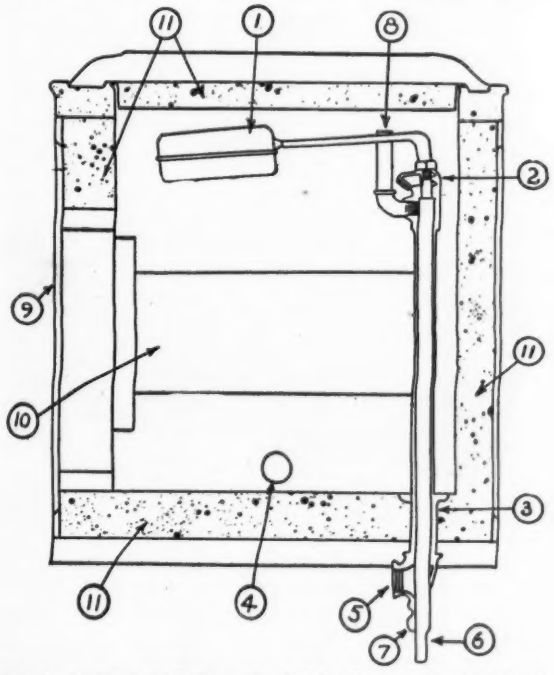


Fig. 4.—1—Float ball; 2—water inlet valve; 3—threaded bushing; 4—threaded flange; 5—overflow outlet, connected to drain; 6—inlet water connection; 7—packing nut; 8—safety overflow pipe; 9—service cover plate; 10—thirteen-inch boiler; 11—rock cork insulation

One objection to this system has been that the water, after being chilled, had to be piped for long distances and circulated with a pump. In many mills this was impossible because of the vast acreage covered by the steel plant. A

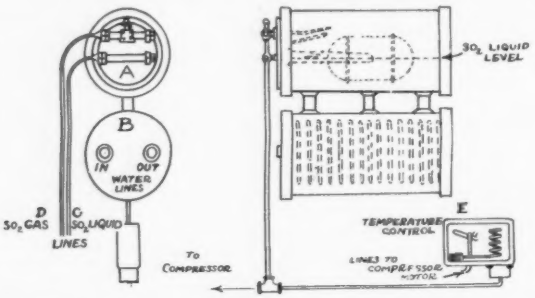


Fig. 5.—One principle used in a water cooler. The compartment A contains the liquid refrigerant. In the lower part B is the liquid SO_2, also coil for cooling water. Liquid to be cooled flows through coil shown

few went to the expense of installing several of these central cooling stations in strategic locations, but it did not produce ideal conditions.

Unusual lengths of the circulating lines are productive of high losses, even when well covered with cork. This necessitates a much larger refrigerating machine than is needed otherwise, in addition to the extra expense for energy to operate and the labor required in attendance. Another point to be considered is that repairs may have to be made and the refrigerating machinery shut down temporarily, thus depriving the mill of cool water while repairs are being made. Most of these mills operate twenty-four hours a day, seven days a week, and continuity of service then is important.

The ordinary practice in many steel plants is to place ice cooler fountains in many locations and distribute ice

Fig. 6.—Type of cooler with water coils immersed in liquid SO_2, as shown in Fig. 5. Note three 4/10 H.P. compressors, water cooled, housed in same cabinet

to them. At first glance this would appear easy, but *actual practice shows that the cost of servicing the coolers,* handling the ice, and paying for ice that is wasted makes it a very expensive proposition. It is not only expensive, but fails to give satisfaction. At some time in the day the water is too cold and causes trouble because of sickness, and at other times it is too warm and causes dissatisfaction. The net result is bad.

Another mill in the Pittsburgh district drilled deep wells, but found that it was impracticable if not impossible for men to go several hundred feet to the well for a drink. As the men worked piece work, they refused to take the time necessary to go so far and suffered in consequence. Then came the boy with the water bucket and common cup. A chunk of not too clean ice in the bucket, open to dust and contamination and the common drinking cup soon showed the fallacy of this system.

You will now readily see that the drinking water problem in such places is very real.

THE INTRODUCTION OF THE SMALL REFRIGERATING UNIT

THEN the small refrigerating machine was introduced. There has been for several years a number of very small machines suitable for cooling household refrigerators, but not all of them were designed for cooling water.

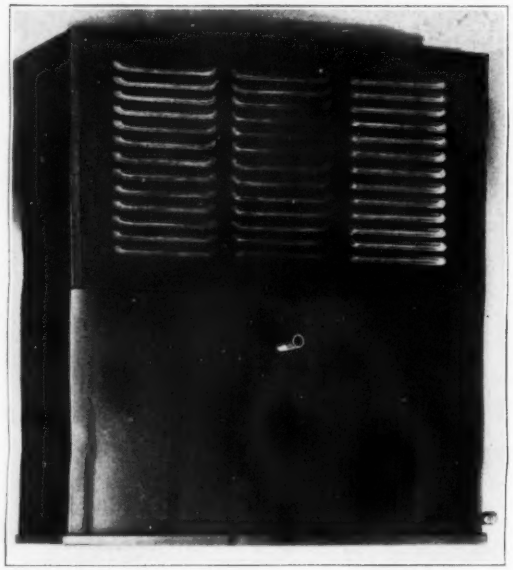


Fig. 7.—Type of cooler self-contained to house one or more compressors and used on circulating jobs. Used with flooded system

Taking the initial heat out of a box and then keeping it cool is a simple problem if the box is well insulated and kept closed. A very small compressor, condenser and cooling coil will do the job. It is quite another matter to extract the heat from water which is immediately used and then replaced with warm water.

The average drop in temperature required for drinking water is 30 deg. F. That is, if the incoming water is 80 deg. F., it must be cooled to 50 deg. F. In extremely warm places the temperature of the incoming water is much higher. The temperature at the main has little to do with the temperature at the faucet, as the water being piped for some distance in the building will soon take on room temperature. For this reason, it is quite as essential to cool water in northern factories as it is in the South.

We will take 30 deg. F. as the average drop in temperature required. As a gallon of water weighs 8.3 lb. the *B.t.u. extraction required would be 30 times 8.3 lb., which* is 249 B.t.u. per gallon of water cooled. The following table gives a conservative estimate of the amount of water used and wasted under various conditions. This table has been checked from many sources and is considered authoritative:

1. Office buildings...¾ to 1 gal. per person per 8 hr. day
2. Light manufacturing...1½ gal. per person per 10 hr. day
3. Heavy manufacturing..2 gal. per person per 10 hr. day
4. Restaurant table service.1 gal. for each 10 persons served
5. Cafeteria .....1 gal. for each 16 persons served
6. Hotel .....1 gal. per hour for 5 rooms
7. Theaters .....1 gal. for 35 persons

As this article deals more especially with heavy manufacturing, it will be noticed that a mill of moderate size, employing 5,000 persons, will require 10,000 gallons of water per day, cooled to 30 deg. F. This is equal to an extraction of 2,490,000 B.t.u. each day, which would require a thirteen-ton ammonia machine for the actual cooling of the water, not considering the enormous losses in the piping. For practical purposes, this job would require at least a twenty-ton machine. However, as a steel mill covers much ground and the workmen are not concentrated into small areas, many mills prefer to have small independent units, each one in a location where it will serve about 100 men. A small compressor using any of the more popular refrigerant gases operating at low pressures, and employing a one-third or one-half horse power motor will do the trick. The average B.t.u. extraction of a one-half horse power compressor is about 49,800 B.t.u. in 12 hours and during that time it will cool 200 gallons of water 30 deg. F. There are no losses in the piping in such a cooler, and if one unit is shut down for repairs, the workmen can go to the next one while repairs on the first one are being made.

There are a few manufacturers making compressors of small size, most of which use SO_2 as a refrigerant gas, although recently some manufacturers of ammonia compressors have come out with one-half ton machines, which are very acceptable in such work as we are discussing. The operation of these small, individual machines is entirely automatic and they can be set to maintain any desired water temperature.

One steel mill found it necessary to install approximately 250 coolers in one plant at an initial cost of *$108,000. The board of directors expects to recover* not less than 25 per cent of the investment during the first year of operation because of the saving over the cost of ice and maintenance required. Fig. 1 shows a cut of the cooler installed in this mill.

PROTECTING WATER COOLERS FROM FROST

ALMOST a paradox exists here as it does in other steel mills. These buildings were constructed without enclosing walls in many departments, so that in spite of the very high temperature in the open hearths, rolling mills, bloom mill and other places, the coolers had to be protected from frost. The water was piped throughout the *building and took the room temperature, so* it had to be cooled 30 deg. F., but as the cooler was set in an exposed place, the water cooled compressor had to be protected from frost. It was necessary to use a water cooled compressor because of the high air-condensing temperatures in the summer time.

You will notice that not only is the cooler itself well insulated, but the compressor compartment *is also in*sulated with 2 inches of cork board. The front and rear of the compartment is fitted with removable insulated shutters which are stored in the space beneath when not needed, as shown in the photograph. The louvered panel fits over the compartment in the winter, while in the *summer it permits air circulation. The top* is made pyramid in shape, so that tools and material can not be placed on the cooler.

Air cooled compressors are often used instead of water cooled compressors, where cost of water is high. It was also found in this mill that it was impossible to use the water from the river for condensing because of its turbidity and heavy acid content caused by dumping industrial waste into the stream. It seems that Pittsburgh charges the towns surrounding the city thirty cents a thousand gallons for water. (Note: not a thousand cubic feet.) At this rate it was found to be advisable to use water cooled compressors. When properly regulated, the ratio of condensing water used to that of drinking water was 1.6 to 1.

One thing in reference to water coolers designed for mechanical refrigeration is the large number of models necessary. It would appear to the layman that half a dozen models would fill every need, but a much larger number is made. Manufacturers of compressors make them in many different dimensions. There is no standardization of the refrigerating machinery, which complicates matters very much. The various uses to which coolers are put also require many models.

The illustrations accompanying this article show a few typical coolers used for different purposes. The demand for water to be cooled mechanically is such that there are nine concerns manufacturing coolers for this purpose today, where there was none three years ago.

THREE METHODS FOR COOLING WATER MECHANICALLY

THERE are three well defined methods used for cooling water mechanically. All are based upon transferring the heat contained in the drinking water to a cooling coil containing the refrigerant either in a gaseous or liquid state from which it is transferred to a condenser where the heat is dissipated into the air if an air cooled compressor is used, and into the water when a water cooled compressor is used.

No attempt will be made in this article to explain the process of mechanical refrigeration, but the principle is the same in all instances whether the job be large or small. There are various methods of applying the principle and many applications of it which would require separate treatment in another article.

Indirect Mechanical Cooling Method

The method most generally used is to immerse both the cooling coil and the water coil in a bath of sweet water, which acts as a transfer medium between the warm surface, which is the water coil, and the cold surface, which is the cooling coil (see Figs. 2 and 3). This is called an indirect method because the heat must pass from the water coil into the bath and from the bath into the cooling coil. The mechanical arrangement of the coils has much to do with the efficiency of this method. The water coil must be the right length for the work to be performed and must be in proper relation to the cooling coil, both as to radiating surface area and as to relative location. The coil must be properly spaced to get the full efficiency of the surface area and the whole must be so arranged to get the maximum natural circulation of the bath arising from the difference in temperature between the top and the bottom of the bath.

The failure to understand these primary requisites is the cause of many failures in home-made, mechanical water coolers.

Cooling Coil in the Water Method

Another method less generally used is to immerse the cooling coil containing the refrigerant gas directly in the drinking water. This can be done either under pressure (which is seldom done) or in a gravity container, which is the usual way when this method is used (see Fig. 4). It

(Continued on Page 79)

"Windows worth $25,000"

Making Good at Home

A MILT MARVELS STORY

THE FAR pastures, it is said, always look greenest. I suppose that every one of us, at some time or other, has looked with a longing eye on the other fellow's job, or business, and thought to ourselves that some folks had all the luck. If you've ever talked to a fellow whose job you've envied, you've probably found out that he thought you had all the luck. And so it goes.

"Go west, young man, go west!" was the cry once upon a time. Well, a lot of young men did go west, and did make good. But those who stayed at home didn't all die of starvation by any means. They scraped along somehow —and many of them scraped up quite a bit of this world's goods.

I've often had the experience of talking with a man who declared that business was so bad that for two pins he'd close up shop and do something else. And right around the corner there'd be another chap in the same line who was quite contented, making money, watching his business grow.

The moral of all this is that it may be true that you can go to Oklahoma and strike it rich in oil; or you might stay at home and with a lot less effort make just as big a success. It's a question of working the diggings you're in, instead of spending your time wishing you had another fellow's claim to work.

MAKING THE MOST OF OPPORTUNITY

TAKING advantage of what some people might consider an out-of-the-way location, studying the opportunities to make money in a district, and capitalizing these opportunities, the Herman Goldner Co., Inc., Philadelphia, has become one of the leading merchandisers in that city.

It was almost an accident that Herman Goldner, 'way back in 1887, picked a cellar on Second street as his shop for his newly formed plumbing and heating business. Second street at that point is in the heart of the mill district of Philadelphia, with a large proportion of the people living in the neighborhood depending upon the mills for their livelihood. It did not appear to be a very good section for success in merchandising. If, however, you will cast your eyes toward the pictures of the Goldner establishment, reproduced here, you will see that the neighbor-

hood was no drawback to the success of an energetic master plumber and heating contractor.

Mr. Goldner decided that sales and installations of plumbing and heating equipment to the mills themselves would be his best source of revenue. Acquaintanceships made in the mills would go a long way towards securing the business, so he concentrated on mill superintendents. *When he got the jobs, naturally he did the very best work* he knew how to do. This leads us to the firm motto, early decided upon: "It has to be right, or we will make it right." Naturally, with this kind of service, the firm grew and soon headquarters were established at 156 East Lehigh street. From this address, Mr. Goldner built up a *reputation as a high-class jobbing plumber*, one who could be depended upon to give quick service, do good work and stand behind any repair job that he might contract to do.

Jobbing in the mills consisted mostly of selling labor, on which there is comparatively little profit. So the master began to bid on an occasional contract job. Some of them he got, and in each case gave the very best he could to his client. His annual volume in those days was around $15,000, not enough to give him the profit to which he, as a business man, should be entitled.

So he took a step forward in his business life. He opened a store at 1425 Lehigh avenue, the concern's present location. He began to merchandise, began to branch out. And all the time he was trying his best to hold his old mill accounts, giving them the service they had grown to expect. Growth has been steady since this step was taken, and before long Mr. Goldner realized that it would pay to have a real business building. The decision made, he built a two-story and basement brick building, properly designed to best accommodate a plumbing and heating business. As you will see by the accompanying photographs, a show room, show windows, a well-designed shop, properly laid out bins, a pipe shop—all the things that would aid him in doing business—were included in the building plans.

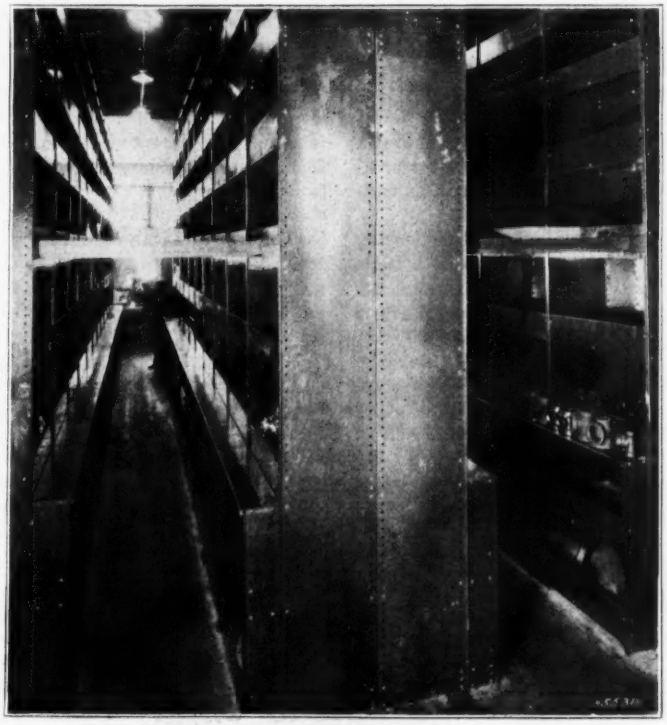
In 1912 his son entered the business, and today exercises supervision over most of the work done. For Herman Goldner has made enough money out of the plumbing business to afford extensive vacations when the spirit moves him, and is often gone for weeks at a time, with Florida trips in the winter and extended visits to his summer home when days get hot. In 1918 he incorporated the business, and the firm of Herman Goldner Co., Inc., dates from that year.

WORKING FOR GROWTH

DO YOU remember the $15,000 a year volume we were speaking about? Last year the volume had climbed to approximately $250,000. And the firm is not one of those unfortunate concerns that "swap dollars." There is a profit made on every sale or installation of material or the work is not taken in the first place. How is this assured, you may ask. By several things. First of all, careful estimating. The three men who do most of the estimating have been with the company for 27, 23 and 18 years respectively, and know all the ins and outs of properly figuring jobs. Second, proper supervision of jobs while being done. Third, a bookkeeping system that keeps track of every detail of the business, that gives the management information about costs and overhead at a moment's notice. Fourth, a determination to use nothing but guaranteed materials, never buying competitive goods, and charging a price that will return a fair profit on materials of this kind.

While speaking of overhead, we might tell you the overhead was figured at 27 per cent last year. This may seem high to some masters accustomed to sell on a 25 per cent basis, the 25 including overhead and profit, but remember salaries of the Goldners, father and son, are figured as part of the carrying charges. Then there is the rent of a $50,000 building. This belongs to Mr. Goldner, Sr., of course, but he rents it to the corporation at a figure commensurate with its value. Of course the percentage of expense varies from year to year, the lowest recorded in the past several years being 17 per cent. Then there are the five men in the office, including stenographers, bookkeepers, a purchasing agent and inside salesmen, whose salaries must be paid. There are the two counter men, the two pipe cutters and the two truck drivers, as well as the estimators we mentioned a short time ago.

Referring again to these estimators, Mr. Goldner has worked out a unique system in connection with these three employees. Under this plan, they do a triple job. First, they are estimators. Next, they are outside salesmen, equipped to go to a mill owner or householder and sell him on Goldner service. Due to their estimating experience, they can also tell the prospect about what the cost of the job would be. Third, they are traveling superintendents. They visit the jobs the journeymen are working on, inspecting them to see that everything is being done properly, with nothing slighted.



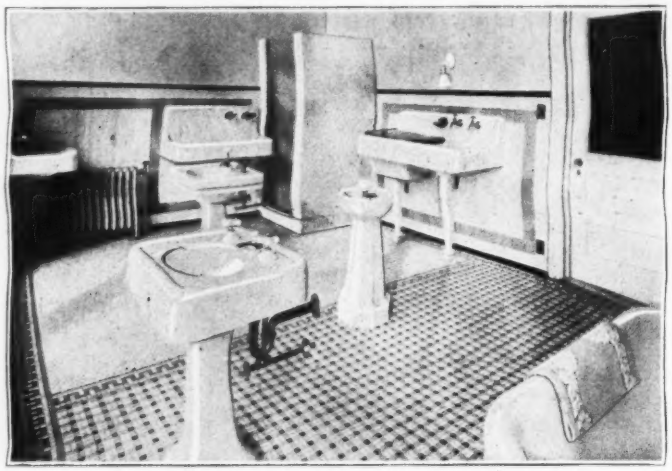
How long will it take here to find a fitting?

MERCHANDISING THE SERVICE

TODAY the firm has approximately three hundred and fifty active accounts, including both mills and private house owners. These accounts keep fifty journeymen and helpers busy during a heavy season. And the number is steadily growing, especially since the installation of the show windows and salesroom. You may note that there are two windows on the street floor and a permanent showroom upstairs, so designed that passersby can see

it. These are lighted every night, from 8 p. m. to midnight during daylight saving, and from darkness to 11 p. m. during the winter. The left downstairs window is changed once a month, the one on the right being more or less of a permanent display, with only minor changes possible every once in a while. Both are cleaned regularly, and the upstairs showroom is cleaned thoroughly daily. These displays contribute to the sales volume.

The Goldners have tried using color in these windows, to aid in attracting attention. They find that colored shower curtains will make people look at the windows and that they are selling a good number of these. Incidentally, Lehigh avenue is a direct artery to the river, and many vehicles pass that way each day. Whether or not drivers look into the windows is answered by Roy J. Goldner, the son, who estimates the windows are worth $25,000 a year in sales. "If we never made a direct sale of an article in the windows, they would still pay from an advertising standpoint," he asserts.



One of Goldner's model displays

While on the subject of advertising, we asked Mr. Goldner how he advertises. We find he uses small ads in a leading Philadelphia evening newspaper, twice a week, in the plumbing and heating section. He inserts advertisements in legitimate booklets gotten out by churches, business associations and the like, and he is a liberal user of envelope stuffers provided by manufacturers. Besides that, booths in prominent expositions in Philadelphia help spread the gospel of sanitation and Goldner service.

That much-abused word "service" means this to these masters, among other things: A customer can get into the shop any time, day or night, that he needs materials. If essential, a truck with the goods will be sent anywhere in the city at any time, in darkness or daylight. Under ordinary conditions, every call is taken care of within an outside limit of four hours.

There are many branches of the plumbing and heating business. There is jobbing, which still provides a large share of the Goldner business. There is the merchandising of goods, an important factor in their sales. There is sprinkler work, which brings in many dollars a year. There are such things as washing machines, which the masters have just added to their line of accessories. Sooner or later these progressive men get into every branch. Oil burners, they have found, do not sell well in their particular locality. But their own building is heated by one, with a complete control system.

The building, incidentally, is a marvel. Begin at the basement, which is well lighted: Here you find supplies of soil pipe and fittings and other materials of this kind, and a room where journeymen can keep their tools. On the first floor, you enter a room bounded by the counter, while in the rear the bins illustrated carry a complete stock of fittings. In the back, down a well-lighted passage, you find the pipe shop, electrically equipped, with nipple and pipe machines, overhead cranes, roller cutters and other tools that aid in making shopwork less expensive. A back entrance allows trucks to drive right into this room.

One flight up is the office, on the left rear, and the showroom in front. On the right rear is a storeroom, with an electric elevator provided to make handling of heavy fixtures possible. The whole is as nearly fireproof as is possible, with automatic sprinkler protection and other modern safeguards.

Here is a business which, like many another in our field, started without any fairy godmother to wave a wand over it. No one came into that basement on Second street and produced a miracle. The original member of the firm realized that there's business to be had somewhere all the time. Many men make the mistake of looking in the obvious places for business; if it isn't right where they think it ought to be, business is rotten.

Mr. Goldner figured out his situation accurately. If there was work in the neighborhood it would be in the mills—that gave him his start, and from then on it was a question of deciding when he was ready to branch out, to take on new contracts, to commence merchandising, and so build the business the company enjoys today.

It isn't, as has so often been remarked, the kind of a start a man gets that tells where he's going to finish. It's the kind of thinking he does when he gets into full swing. If he takes advantage of the opportunities others are passing up, he'll find that the "left-overs" are often apt to be more profitable than the work that is being passed around for everyone to shoot at.

Herman Goldner might have moved away from Second street into what looked like better territory and found that he would have to do just what he did in his first location—look for opportunities.

An Obscure Heating Problem

THE MEMBERS of a concern doing a large amount of heating work were confronted with a heating problem. They have many heating problems to solve as do many heating contractors. They are not disconcerted by a heating problem,—they merely put enough time and study on it and sooner or later it is solved. But this problem was a little more obscure than some of the others, so they appealed to "Domestic Engineering." Their letter is given below:

"We have installed a one-pipe steam job which is causing trouble. You will find enclosed herewith a sketch of this job.

"The job as shown on the sketch is not as it was originally installed. We have made several changes and the job is now installed as shown in Fig. 1.

"The boiler used is a low water line boiler of 3,200 square feet capacity. The radiators on the first floor are of the wall type and hang near the ceiling. The radiators on the second floor are all 3-column, 38-inch high radiators except two small wall radiators. Each radiator is provided with a good control valve and air valve. The ends of the dry returns have quick vent valves on them. The boiler, which has two four-inch steam openings, has a steam header of 6-inch pipe. From this 6-inch header there is a 2½-inch drip pipe to the 2½-inch return header. The return has a 2½-inch swing check valve in the boiler room and on a level with the return boiler openings. There are two 3-inch circuits on this job. Each circuit starts at the ceiling of the first floor just above the boiler room. These two 3-inch circuits are fed by 4-inch lines from the header of the boiler. All mains and returns have the proper pitch and in the right direction.

"The boiler has been blown off sufficiently and also we have used a compound which is manufactured by a reputable concern so that the boiler is just about as clean as one can be.

"We have fired the boiler with the quick air vents and also without them. We have cut off all the ceiling radiators and fired up. We have also cut off all the second floor radiators with the ceiling radiators open. All the radiators on one circuit, and then the other, have been cut off.

"The return lines are all dry except the short run in the boiler room, the quick air vents on the end of the returns are ten feet or more above the water line. We have looked for stoppages but all pipes were clear. This is a very fast steaming boiler. We have fired it fast, slow and medium.

The Following Is What Happens:

"When the boiler begins to steam the water in the glass rises until the glass is completely full. When about one and one-half pounds of steam are generated the water begins to fall and goes entirely out of the glass; more water is then added and after a long period of hard work we are able to hold a steady water line. Then as soon as the pressure begins to fall the glass fills up again and the water must be drained from the boiler. Just as long as there is a variation in pressure, water must be either added or taken from the boiler, as the case may be.

"There are no water hammers. The only noises to be heard are in the two four-inch risers from the boiler. These two pipes vibrate considerably and there is a noise in them as if the water is being siphoned from the boiler.

"The water leaves through the mains and not the return. The check valve is absolutely tight. Water never gushes from the quick vents.

"When the entire load is on the boiler, the second floor radiators heat up all right, but the ceiling radiators never get hot all over.

"We have tried all the above experiments and have failed to get either better or worse results.

"As you have solved many harder problems than this one, we look forward to you doing likewise with this one. Thanking you, we are _____."

Can You Solve this Problem?

A heating engineer of repute has been asked to work on an obscure heating trouble. His solution is presented here. Every heating contractor or engineer is confronted with heating problems which frequently he must solve without being able to actually inspect the job. It was so in this case. Complete and definite information was lacking.

But one of the best practices a heating man can indulge in is to train his imagination to suspect and anticipate troubles from what has been told him. Many trouble men have to do this.

So every reader of this article is requested to study this problem and to send in a solution or some suggestions regarding it. Another engineer is now doing this and it will be interesting to read his suggestions along with yours in a succeeding issue.

Revised Layout for One-Pipe Steam Heating Installation

By George W. Roberts

BEFORE starting the analysis of the layout as shown on the accompanying drawings we will describe the installation as it was originally made.

The radiation as shown on the drawings remains as originally installed, as this could not be checked, due to lack of data on the building construction.

The boiler installed was a cast iron sectional boiler of a low water line type containing 10 sections with a commercial rating of 3,200 sq. ft. and having, according to the catalog, 13.13 sq. ft. of grate area.

There are four 4-inch steam openings, two in each end section and two 4-inch return openings, one in each end section. Only two of the steam openings were used, these being connected into a 6-inch header. From this header two 4-inch connections were taken and extended 4 inches to the ceiling of the first floor, a distance of about 12 ft., vertical height. At the top they were reduced by 4x3-inch elbows and two 3-inch lines were run until all radiator connections were taken off. They were then reduced to 2 in. and two 2-in. returns were run to boiler room and connected below the water line and then connected to both openings of the boiler. Both returns were properly vented at the top before dropping to boiler room.

The radiation in the two connected wings was served by single 2-inch lines taken from the side of the main and pitching up to the last radiator so that steam and water of condensation flowed in opposite directions.

All radiators on both ceiling and first floor were connected on the single-pipe principle.

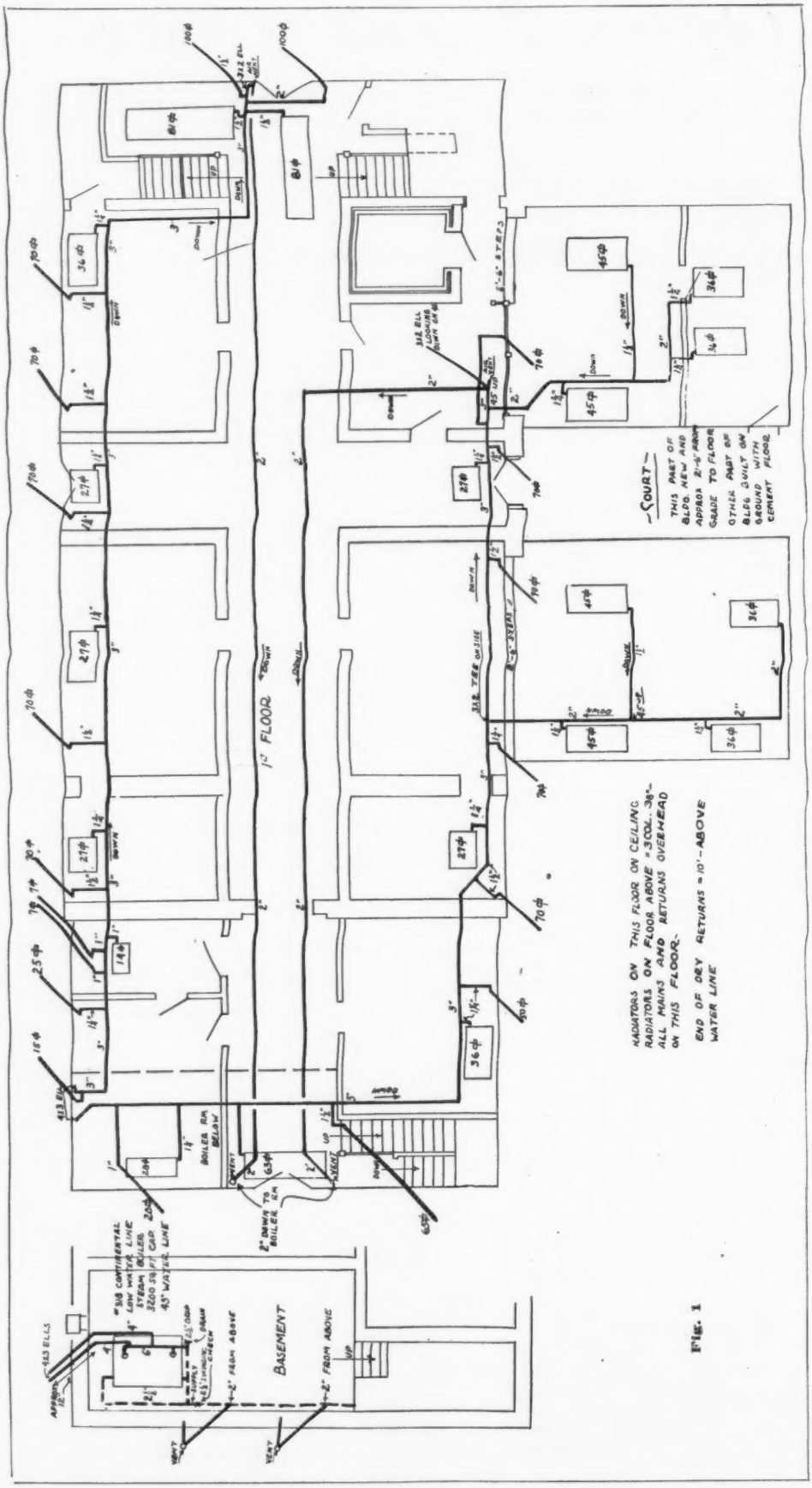

1ST FLOOR
BASEMENT
COURT
THIS PART OF BLDG. NEW AND ABOUT 2'-6" ABOVE GRADE TO FLOOR
OTHER PART OF BLDG BUILT ON GROUND WITH CEMENT FLOOR
RADIATORS ON THIS FLOOR ON CEILING
RADIATORS ON FLOOR ABOVE = 3COL. 38"-
ALL MAINS AND RETURNS OVERHEAD
ON THIS FLOOR-
END OF DRY RETURNS = 10"-ABOVE WATER LINE
"HB CONTINENTAL LOW WATER LINE STEAM BOILER 3200 SQ FT CAP. 25# 45" WATER LINE
BOILER RM BELOW
2" DOWN TO BOILER RM
FROM ABOVE
FROM ABOVE
45 ELLS

Fig. 1

The original drawing, Fig. 1, showed all valves to be of correct size and all radiators were provided with a good make of air valve.

In the writer's opinion there are two major defects in this design and some minor defects in the piping.

The first and greatest defect is in the boiler; this we consider too small to provide steam for the connected load under ordinary firing conditions. The second is the size of the main steam lines which, in our opinion, is too small to carry the amount of radiation connected without an excessive drop in pressure.

As a substitute for the original layout the following plan and description is suggested. See Fig. 2.

The drawing shows a total of 1,887 sq. ft. of radiation, of which 812 sq. ft. is of the wall type, which, when reduced to column type efficiency, adds 160 sq. ft. to the condensing effect or a total of 2,047 sq. ft. To this must be added the steam and return piping which ordinarily will approximate 20 per cent of the radiation or 409 sq. ft., making a total boiler load of 2,456 sq. ft., on a basis of 250 B.t.u. per sq. ft., the basis on which cast iron boilers are rated.

This, however, is not all of the work the boiler must perform, as the 250 B.t.u. per sq. ft. of radiation only represents the efficiency when stand-

ing in still air at 70 deg. As it is hardly possible that a constant temperature of 70 deg. will be maintained, it is quite probable that in the morning the temperature will be more nearly 40 deg., in which case the condensing efficiency will be increased accordingly.

This added load is equal to 20 per cent, which, added to our former load of 2,456 sq. ft., equals a peak load of 2,947 sq. ft. which the boiler will be at some times called upon to carry.

One quarter of 2,947 sq. ft., or 737, is the number of pounds of steam demanded. As there is approximately 24½ cu. ft. of steam in one pound, there must be provision made to produce and carry to the radiators 18,056 cu. ft. in one hour under peak conditions. The selection of the boiler may now be made from the foregoing data.

Assuming that one pound of coal will evaporate six pounds of water, and that seven pounds of coal can be burned on one sq. ft. of grate, and that 737 pounds of steam are required, then the boiler must have 17 sq. ft. of grate surface.

In order that the water will not be siphoned from the boiler through the steam outlets, the velocity must be held to not more than 20 ft. per second, which is considered the limit for safety. Having determined that 18,056 cu. ft. per hour, or 5 cu. ft. per sec-

(Continued on Page 50)

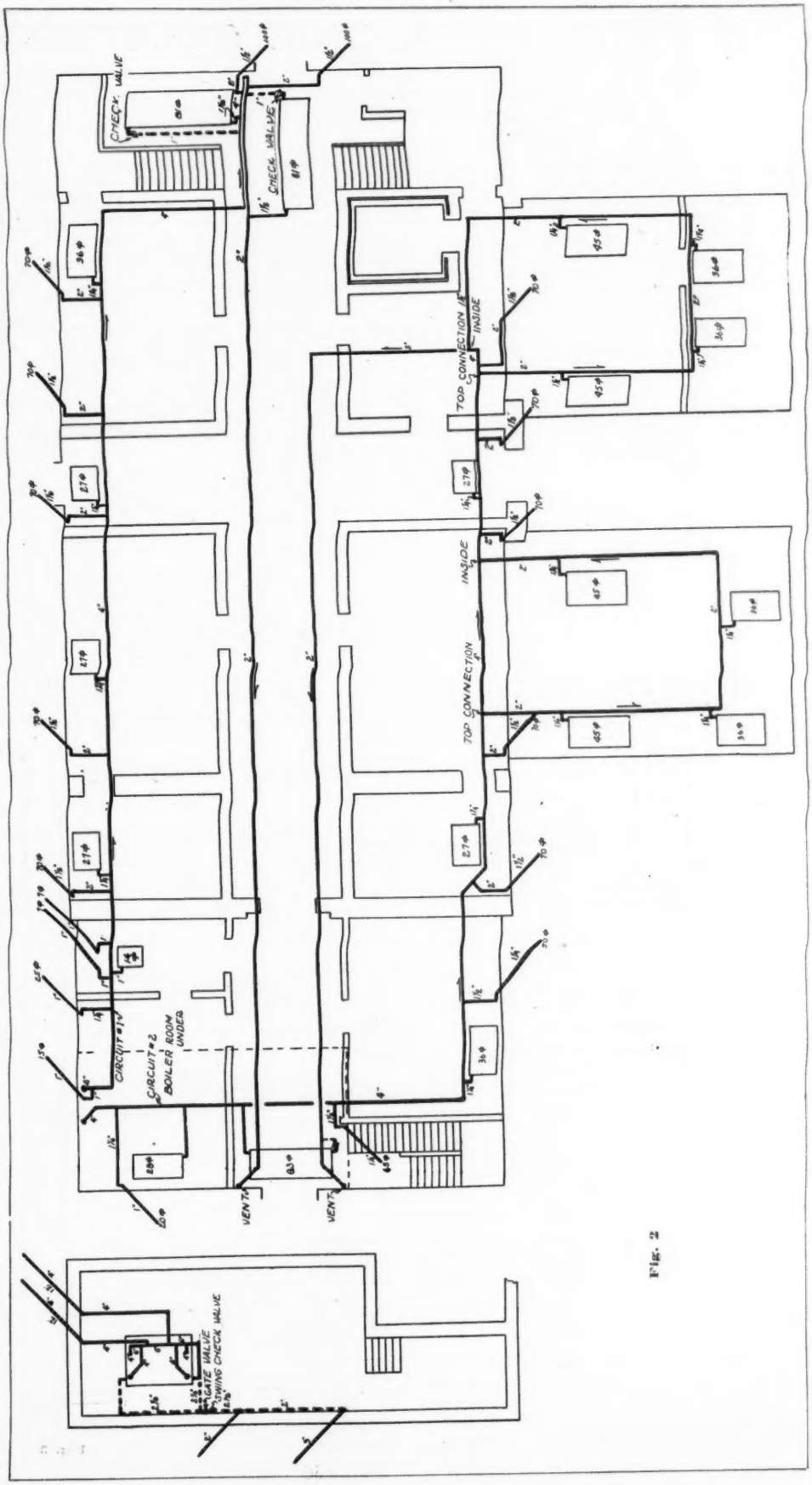


Fig. 2

A Plumbing Conference

By R. M. STARBUCK, JR.

RECENTLY we devoted an entire article to the discussion of an accumulation of various subjects on which different ones had written us for information.

We made quite a dent in the assortment of problems which confronted us, but find that we have to go still further, and so this article will be devoted to the same purpose. We hope that each reader will find problems herein handled that will be especially helpful to him.

From Frank B. Zeno of Braddock, Pa., comes a request for information concerning three different problems shown in Figs. 1, 2, 3, 4 and 5. As between Figs. 1 and 2, he wishes to know which is correct, whether Fig. 3 shows proper connections for six refrigerators, and whether Fig. 4 or Fig. 5 is correct.

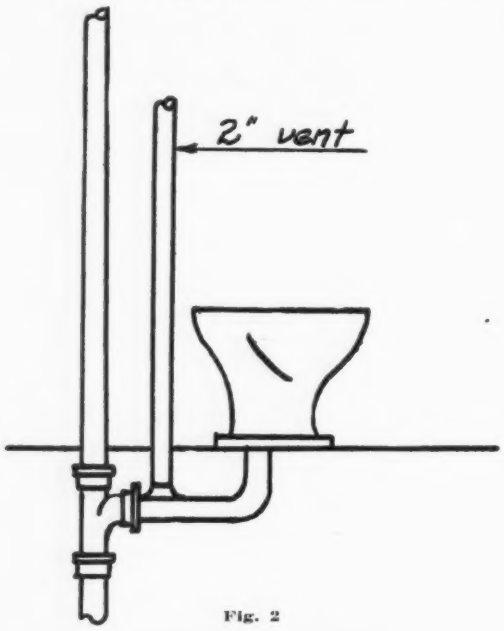


Fig. 2

Figs. 1 and 2 show two types of vent for a water closet. We suppose Fig. 1 to show this, for we cannot see what else it can be supposed to show.

Years and years ago, water closets were vented from a spud attached to the crockery, but this was before the day of the siphon-jet closet bowls, which correspondent's sketches show. We have no hesitancy in saying that venting of the kind shown in Fig. 1 is impossible. Not only that, but such a vent would destroy the siphonic action that the operation of the bowl depends upon.

Fig. 2 shows a very common method of venting the water closet from the lead bend, which is in use in all parts of the country. To show more of the detail of this type of venting, we give Fig. 6, which shows the vent properly connected to the vent system.

A PROBLEM IN REFRIGERATOR CONNECTIONS

THE NEXT problem is presented in Fig. 3, and the question is asked, whether this is a proper connection for six refrigerators.

The chief objection that we find is the long flat waste that each refrigerator has. It is obvious that the waste from the refrigerator is very sluggish, and such waste connections as these are sure to clog up in a short time. Refrigerator connections should be given as sharp a pitch as can be obtained, as in Fig. 7, and they should connect into a double Y instead of sanitary tee. It is O. K. to discharge the refrigerators into a sink, as shown. We note that the vent from this sink is carried independently through the roof. While this is in no way wrong, it should be stated that to so run the pipe is not necessary if it is possible to do otherwise, that is, if it is possible to connect the vent of the drip sink into some convenient part of the vent system, and thus save the expense of carrying the pipe through the roof.

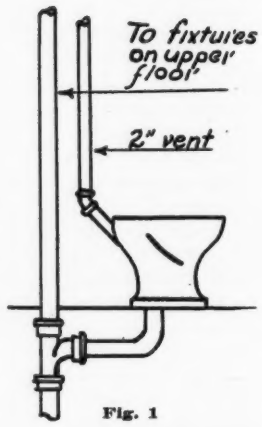


Fig. 1

The correspondent wishes to know whether Fig. 4 or Fig. 5 is the proper connection for a single refrigerator. In answering this question, we need to discuss the two connections rather than merely to say that either one or the other is correct.

In the case of a single refrigerator, it is not considered necessary to carry the pipe through the roof. When two or more refrigerators are on two or more floors, then it

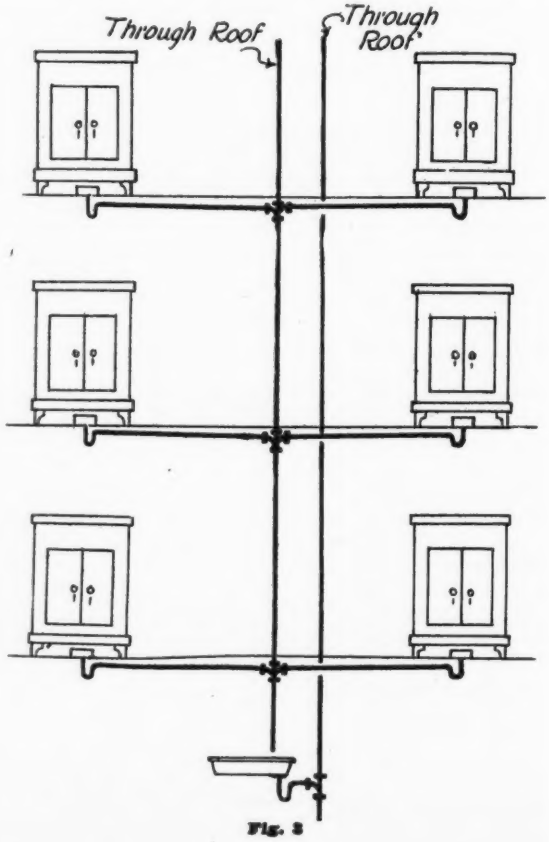


Fig. 3

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Hot Water
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No Worrisome Watching
Every woman who has an ARCOLA enthuses about its automatic control. She sets the pointer at any degree desired and the ARCOLA holds the heat right there! For small homes, offices, stores, single flats, etc. Burns any fuel and cuts the bills! Ask us about low price. 12 months to pay. Made by
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AMERICAN RADIATOR COMPANY
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ARCOLA
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Sold by
YOUR NAME HERE
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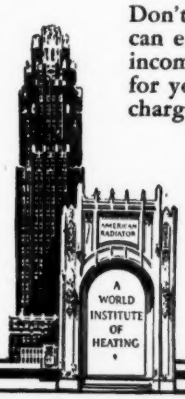
Your Phone No

Sell ARCOLAS on the Plan of "Least Resistance"

You are familiar with the ARCOLA Heater and how it affords *ideal radiator heat* to owners of cottages and small business buildings. You are familiar with the ARCOLA Partial Payment plan—making it possible for you to sell ARCOLA on the modern, easy terms your townfolk enjoy in purchasing homes, automobiles, and home equipment.

But, how many of your *prospects* know that through this easy payment plan they may enjoy the comfort, convenience and fuel economy of ARCOLA radiator heat—the same luxurious and healthful *radiator heat* that the most costly basement-boiler gives to larger homes? Your prospects can't know about this easy plan of obtaining radiator heat—at terms within their reach—unless ***you*** tell them!

Don't wait until autumn. Tell your prospects *NOW* how *everyone* can enjoy Ideal ARCOLA *radiator heat*—no matter how modest their income—on only a small payment down. We will, if you wish, run off for you facsimile typewritten circulars on your letterheads, without charge. Make up your list of prospects today and let us help you—NOW!



AMERICAN RADIATOR COMPANY

Showrooms and sales offices: New York, Boston, Providence, New Haven, Newark, Philadelphia, Baltimore, Washington, Richmond, Buffalo, Pittsburgh, Cleveland, Detroit, Cincinnati, Atlanta, Chicago, Milwaukee, Indianapolis, St. Louis, St. Paul, Minneapolis, Omaha, Kansas City, Denver, San Francisco, Los Angeles, Seattle, Toronto, London, Paris, Milan, Brussels, Berlin.

Makers of IDEAL Boilers, AMERICAN Radiators, ARCO Tank Heaters, VENTO Ventilating Heaters, AIRID Air Valves, MERCOID Controls and devices for drying, humidifying, cooling and refrigeration.

"Standard" advertisements are telling

about the "Three Eights" Sinks

Everywhere people are reading about the "Three Eights" Sinks. Everywhere they are learning of this new "Standard" design which is making sink history. The leading magazines and newspapers read by all classes, magazines for women, for farmers, for builders, those shown above and many others—are carrying this message to their many million readers.

Included among these readers are your customers, and those in your neighborhood who are alive to the fact that these "Three Eights" Sinks are the ones they have long wanted. They need only to be informed that you are showing the sinks in your store, that you can furnish them promptly and can install them, for you to make sales.

Tell your prospects of the "Three Eights." Tell them the advantages of the 8-inch back, the 8-inch deep sink and the 8-inch wide front.

Call their attention to the beauty and the convenience of the new design swinging-spout faucet, K888S, its ease of cleaning, and its platinum-like Chromard Finish, which will not tarnish or corrode. Point out the step-saving convenience of the sanitary, directly-attached garbage container.

And, above all, show them how the hard, gleaming white "Standard" Acid-Resisting Enamel is not affected by acids or kitchen cleansers. Explain that its gloss is permanent, that there will be no more rough or discolored spots to mar the sink and destroy the owner's pride in its beauty of appearance.

Take advantage of the extensive national advertising being given the "Three Eights" Sinks. Convert this consumer interest into profits.

Your Wholesaler can supply these sinks promptly.

Furnish your prospects with this booklet, which explains the "Three Eights" Sinks in detail. Send your business name and address written plainly to insure correct imprinting, and secure a supply.

Standard Sanitary Mfg. Co.
PITTSBURGH

"Standard" PLUMBING FIXTURES

The "Three Eights"

8 inch low back fits snugly under a deep window

8 inch deep front gives the whole sink a new beauty

8 inch deep sink is roomier, prevents over-the-rim splashes

becomes necessary, according to most plumbing codes, to carry the pipe through the roof. Neither is it necessary to carry the vent of the drip sink through the roof, but it can be connected to the vent system, just as the vent of any regular plumbing fixture should be connected.

In both these illustrations the wastes are long and flat, and the same criticism of them applies as in the case of Fig. 3.

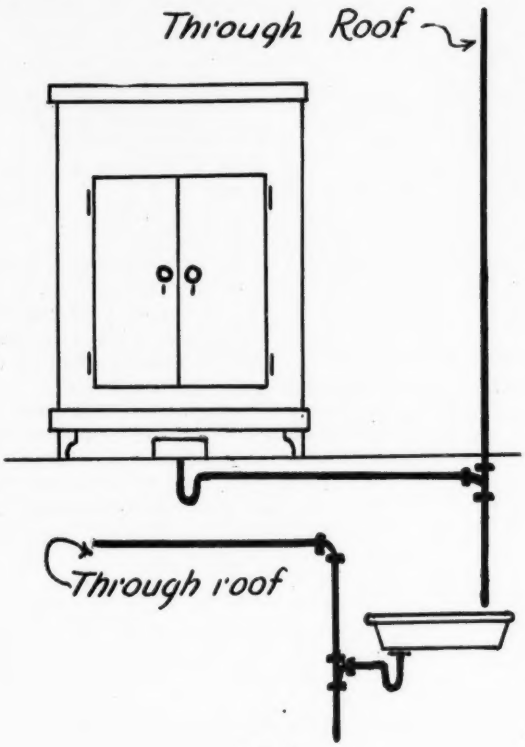


Fig. 4

We do not know that the trap in Fig. 5 can be called wrong, but it is best to have the trap as close to the refrigerator as possible, in order to have little unprotected waste pipe to throw off foul odors which might find their way into the refrigerator.

Figs. 8 and 9 show two approved methods of connecting a single refrigerator,—into a cellar floor drain or into a special drip sink.

SOME UNUSUAL INQUIRIES

AN INTERESTING and unusual inquiry comes from A. F. Bellingrath, Decatur, Ga., covered by the following:

"Some years ago we had in Atlanta a siphon-washdown water closet bowl, roughed in as shown in accompanying sketch, which would not siphon. A new bowl was substituted, and it also refused to siphon. After the third bowl did not work, the plumber conceived the idea that if he inserted a short leg of three-inch lead pipe inside the four-inch pipe, it would make the closet work. After the three-inch pipe was inserted the bowls worked all O.K."

The problem is illustrated by Fig. 10.

It is always difficult to answer such a question as this, with absolute certainty, for there are so many "ifs" involved.

It seems to us more than likely that the cause of this condition is to be found in the construction of the bowl. In order to set up siphonage, a vacuum or partial vacuum must be created in the long or outlet arm of the siphon. If conditions were such that this was impossible with the 4-inch pipe, no doubt the difference in area of the 3-inch pipe accounted for the success in using this size. It would naturally be easier to set up siphonic action with the 3-inch outlet than with the 4-inch outlet. If the construction of the bowl did not allow for the retarding of the flush sufficiently to cause siphonage with the ordinary size outlet, of course the smaller pipe, in not allowing the water to get away so fast, would help to rectify this condition. There is also the possibility that the bowl was not getting a sufficiently large flush from the tank for the 4-inch connection, and that if the flush had been increased the bowls would have siphoned without resorting to the 3-inch pipe.

If others have different ideas to offer on this problem, we shall be glad to hear from them.

"F. L. G.," Boston, Mass., comes at us with several questions concerning the raising of sewage collecting below the level of the sewer, as follows:

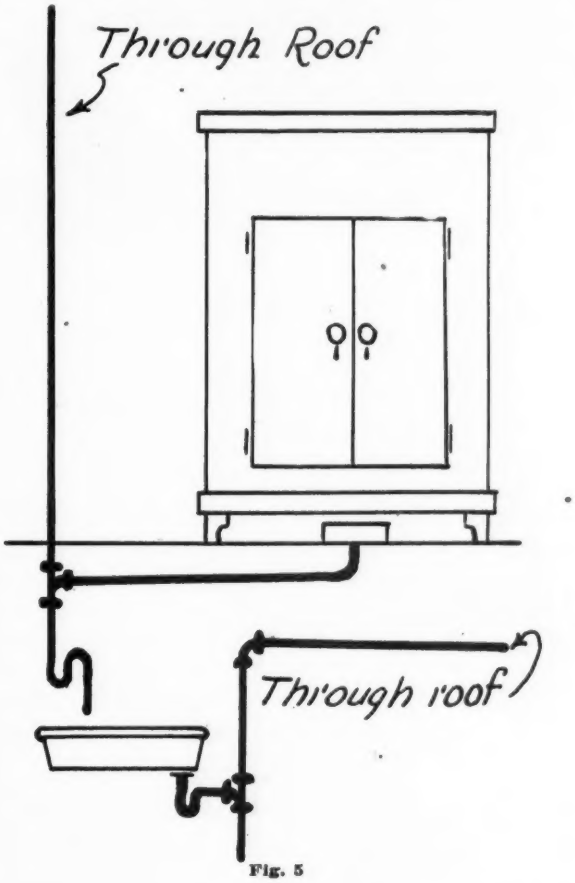


Fig. 5

1.—What is the maximum height that sewage can be lifted with a centrifugal bilge pump?

2.—Is it good plumbing practice to increase the discharge pipe one pipe size on leaving the ejector?

3.—Is there any objection to connecting a vent pipe from a centrifugal ejector into the regular house vent system? Would this have any effect on trap seals, owing to the very rapid discharge and likewise rapid intake of air?

4.—What do you consider the best method of entering the discharge line into the overhead sewer?

5.—On a pneumatic ejector, how much air pressure will

(Continued on Page 67)

Advertising Editorial

A NEW ONE EVERY WEEK—No. 280

To cut your fuel bill—

Insulate *and* Regulate

IT'S OLD-FASHIONED now to try to run the heating plant by hand—going down into the basement to open the drafts when the house cools off and again to close them when you think it's warm enough. Automatic regulation is the scientific method of maintaining even temperature. You set the thermostat—your comfort is insured. Insulation assures you that the heat you generate in the basement reaches the rooms upstairs. And insulation and regulation mean scientific heating—at lower cost. We're experts.

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THE NEWSPAPER is a daily text book. Many people don't read anything else—not even the magazines. They get all their information from their daily paper. If you are advertising in your local paper, you are furnishing these people with a part of the information they seek—according to which they buy. The Advertising Editorials make it easy for you to advertise. We send cut and reprint of this page each week. You hand them to your paper. $4.20 for three months' service. Send in your order today!

SALES LETTER

One a Week—No. 117

It is generally recognized that summer is the time to get the heating plant in shape. Go after home owners in your community with this letter.

JOHN BROWN
Plumbing : Heating

Two Rivers, N. Y.,
August 6, 1927.

Mrs. Edward Jones,
Two Rivers, N. Y.

Dear Madam:

Think back to last winter—was it necessary for you to run into the basement many times a day in order to keep your home at just the right temperature? That is the usual experience—unless the heating plant is insulated and scientifically regulated.

We urge insulation because then every bit of heat generated in the boiler reaches the rooms above. And we urge regulation because then all you have to do is set the thermostat at the healthful temperature and it does the rest—automatically. It keeps your rooms at an even temperature.

Both of these modern improvements mean a lower fuel cost. Insulation cuts the fuel bill because it makes use of all the heat generated by the fuel you are burning. Regulation, because it controls your heating plant scientifically. No guess-work. You want a certain temperature and the regulator sees to it that you get it,—without a lot of fuss and inconvenience.

We are experts in insulation and regulation. Just telephone and we'll send a competent man to advise you.

Very truly yours,
JOHN BROWN.

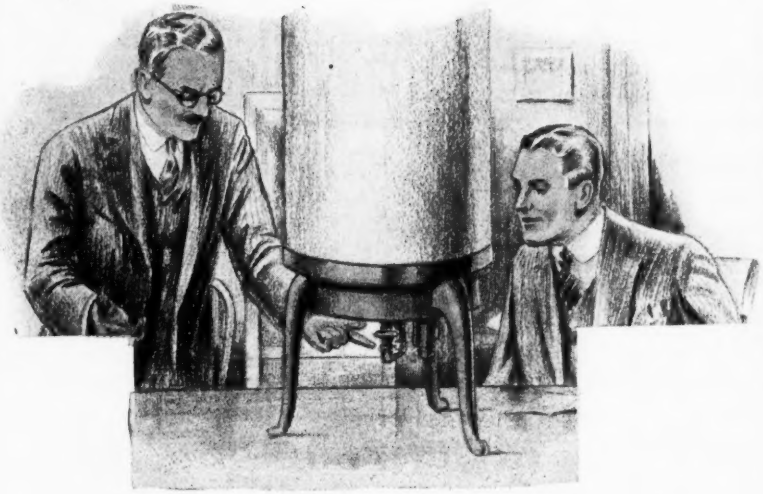
Adlet

ONE A WEEK—No. 138

IT DOESN'T make a lot of difference how big your newspaper advertisement is—if it's in the paper consistently. Of course, size helps. But it is nevertheless true that a small ad, run every day, will show results. That's why we always carry the Adlet on this page. Copy out the one below, add your name, telephone and address and hand it to your local paper with instructions to run every day. The cost will be small.

Insulation—Regulation

Mean lower fuel bills because insulation conserves heat and regulation gives it to you in just the quantity you need when you need it.



One demonstration will be enough to convince the most skeptical customer that the Barber Patented Jet Gas Burner equipped heater is the one for his requirements.

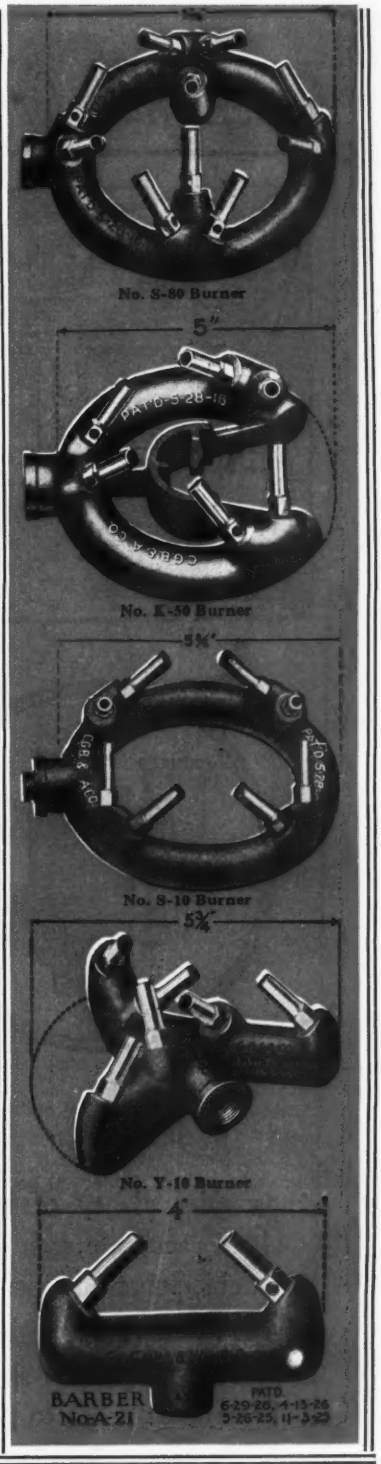
No matter what the job, the Barber will prove equally efficient in all. It will reduce fuel costs, serve better and longer and keep your name prominently in the minds of your customers.

BARBER Patented JET GAS BURNERS

Are already standard equipment on the heaters of half a hundred of the leading manufacturers.

Your jobber will be glad to supply you with Barber Burner equipped heaters or, we will be glad to send you the names of these manufacturers.

There's a Barber Burner for every style and type of heater.



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All are prospects for Kenney Thermo Valves ("Snap Action") What household will fail to appreciate a plenteous supply of hot water—*on the instant and at the right temperature?*

The Kenney is built to last a lifetime —*it will give complete satisfaction* and bring you a real profit!

KENNEY
THERMO VALVE
"SNAP ACTION"

provides plenty of hot water—no waiting, no worry, always automatic, always accurate, ever dependable! No frail levers, heavy durable construction, trouble-proof simplicity, easily installed, safeguards your plumbing—only a small yellow pilot light remains burning when water reaches proper temperature. *Snaps on—snaps off!* Converts any boiler into an instant hot water heater—at profit to you!

FLANNERY MFG. CO.

FLANNERY BLDG. PITTSBURGH, PA.

QUESTIONS

ASKED BY OUR READERS AND ANSWERED BY OUR EXPERTS

The Questions and Answers Department is open to all readers. Here their questions are answered—their problems solved. And, what is more, this department is an open forum, where readers may discuss plumbing and heating subjects. Don't hesitate to ask questions about the things you want to know, and don't fail to send in your comments and criticisms of questions that have been answered. While all questions are answered by men who are expert in their particular lines, your experiences may help a fellow craftsman who is in need of information. This department is for the craft. Use it freely. There are many ways to untie knotty problems.

POUNDING IN WATER SUPPLY LINES

Editor, "Domestic Engineering":—I have been having trouble with water hammer in pipe lines, and would like your advice on the trouble. The water pressure in this city is 65 pounds. I put on a pressure-reducing regulator and cut the inside pressure to 40 pounds. There are forty-five rooms in the building, which is a two-story hotel and store building. All of the lavatories are fitted with self-closing basin cocks. When water is being used at the faucet, the entire line, both hot and cold, pounds all the way to the basement. Could you give me any information which would help me eliminate this pounding?

Montana. W. H. C.

We suggest the installation of an extra large air chamber, using 1½ or 2-inch pipe from 3 to 4 ft. long, just inside of the pressure-reducing valve. In a similar case we have found this effective.

It may also be necessary to install air chambers at the ends of the supply lines, in which case be sure to make them large enough.

CASUAL SURVEY FOR SEWERING A TOWN

Editor, "Domestic Engineering":—In sewering of a town, is it advisable or practical to make a complete layout or survey of the town before the scheme of disposal, or the place for disposal has been ascertained?

New Jersey. M. J. D.

A complete layout or survey is not necessary as a preliminary step towards the sewering of a town. A casual survey should indicate the best site for the disposal bed or septic tank, after which the engineer can lay out the runs so as to best serve the town, the contour being taken into consideration in the preliminary survey and then verified by the final survey.

TO ELIMINATE AIR LOCK

Editor, "Domestic Engineering":—On an installation I made several weeks ago, the hot water in the bathroom refuses to run, although it is all right in the kitchen. The indications are that it is probably air locked.

The tank in the attic is a second-hand, 140-gallon range boiler, which was very rusty on the inside. After thoroughly cleaning the boiler, I thought perhaps the hot water line was choked with dirt, but a force pump at the bathroom faucet refused to produce water. A second hook-up of the force pump produced hot water for a short time, and it then quit. Will you please tell me what the trouble is, and how it can be remedied?

Maryland. H. M. Z.

Air lock is the trouble and it can be relieved by installing relief pipes from the high points in the hot water supply line to a point over the storage tank, connecting into the overflow pipe from the tank, and with a short nipple extending upwards at this point to relieve any air at this connection. We show two relief pipes on your sketch at A and B.

We suggest the installation of A followed by the installation of B if A does not give results, but A should be satisfactory, as the distance from the hot water tank to

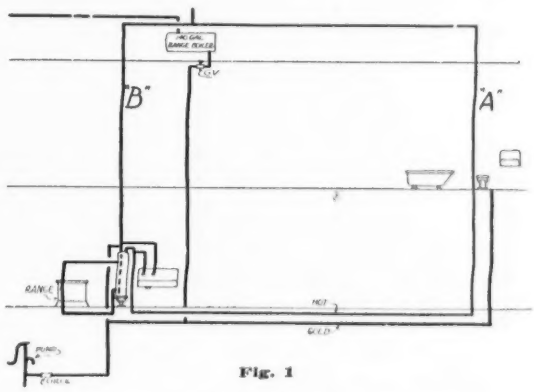


Fig. 1

the sink is very short and you state that you have no trouble at the sink. Therefore, pipe B may not be needed at all.

As shown by your sketch, your supply connections from pump to tank are such that a great deal of air will be forced into the high points of the system by the action of the pump, and, in our opinion, better results would be obtained if you would install a direct feed line from the pump to the tank, and then supply the fixtures with another line from the tank.

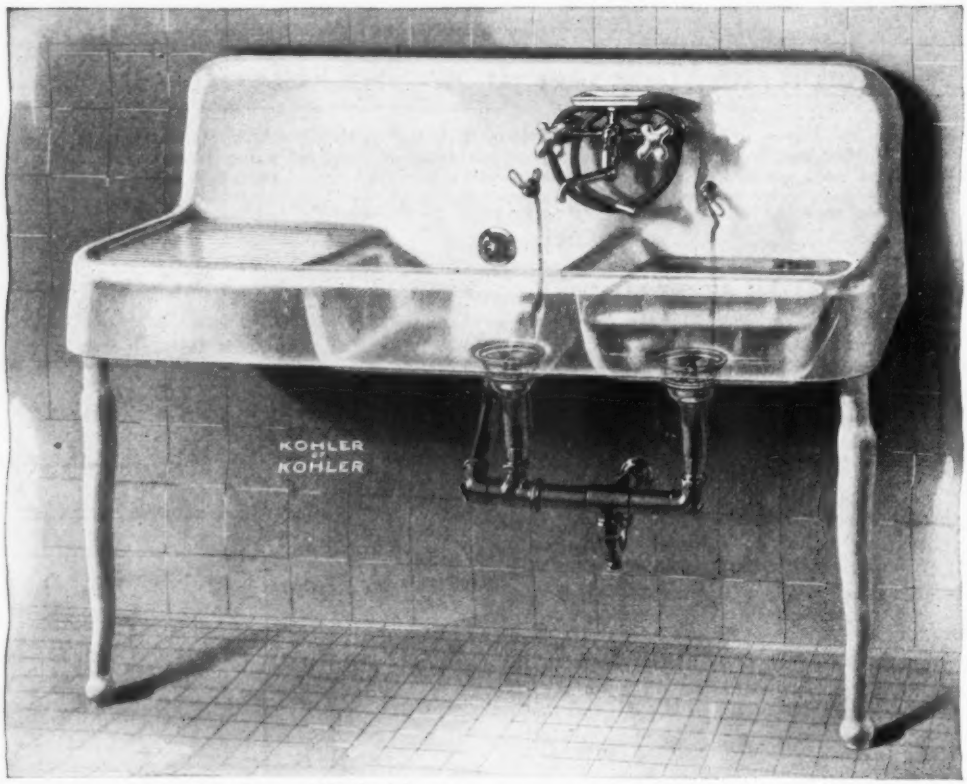
TAPPING A SEWER MAIN

Editor, "Domestic Engineering":—Why is it that when you are tapping a sewer main no offensive odor is noticed until the line has gone about fifty feet?

Texas. E. L. K.

If a condition such as you describe exists, it is possibly due to the fact that the sewer is ventilated at the various man-holes and catch-basins, as well as the branch sewer lines and stacks in buildings.

When working close to the main sewer, the foul odors arise through the man-holes and are not noticeable, but after considerable pipe has been installed, this run of pipe fills with the foul odors, and as a rule the workmen keep the end of the pipe blocked with waste or oakum. Therefore there is no chance for odors to escape except when additional lengths are being added, at which time the plug is removed, and the odor is noticeable.



One of several new-model Kohler sinks with two compartments and many other superior features. Fittings with two trays can be furnished if desired

New features . . a *new* sales opportunity in these *new* Kohler sinks

HERE is one of the new Kohler *two-compartment* sinks, second only to the Kohler Electric Sink in appeal to those who demand the most modern equipment.

The two compartments, *extra deep* —one for washing, the other for rinsing — permit greater working efficiency. Each compartment has a lift drain to hold water without using a dishpan. Removable cup strainers and sub-strainers, overflow connected with the drain pipe, swing spout faucet, rinsing hose with special spray nozzle, and removable china soap dish are other great improvements.

The fittings are of Kohler make and quality. They are nickel-plated, or can be furnished chromium-plated for greatest durability and beauty.

Ask your jobber about these new sinks. And write us for an illustrated descriptive leaflet.

KOHLER CO., *Founded* 1873, KOHLER, WIS.
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KOHLER OF KOHLER
Plumbing Fixtures

MEMBER OF THE NATIONAL TRADE EXTENSION BUREAU

Philadelphia's Rules for Oil Burner Installations

THE new rules and regulations covering oil burning installations in Philadelphia, reprinted in full below, show the results of co-operation between the Philadelphia fire marshal, the representative of the underwriters board and the local Oil Burner Dealers association.

In these regulations, all variance between rulings of the local authorities and the National Board of Fire Underwriters was eliminated with the result that installations in Philadelphia can now be made with no danger of violation of either local or national rulings which are so often conflicting.

RULES AND REGULATIONS COVERING DOMESTIC FUEL OIL BURNERS

APPLICATION must be made prior to the installation of tank at the mayor's license clerk, Room 205, City Hall, and approved by the fire marshal.

All installations are subject to the inspection of the fire marshal's office upon completion of the tank and burner, the fire marshal's office must be notified on return post card form attached. Separate inspection on either tank or burner can only be made in cases where it is impossible to complete the whole job. Tanks may be back filled if sufficient opening is left so that the depth of excavation can be checked as well as suction and return lines coming from the top of tank.

"Domestic fuel oil burners" shall mean any device designed and arranged for the purpose of burning fuel oil.

The burner to be used must have the approval of the fire marshal.

All domestic oil burners, and all equipment in connection therewith, shall be installed and maintained in accordance with these rules and regulations.

No oil shall be kept for or used in any domestic fuel oil burner which emits an inflammable vapor below 135 degrees Fahr., to be ascertained by any standard closed-cup tester.

1—Material of Construction—Tanks

Tanks for the storage of fuel oil shall be of galvanized steel, basic open-hearth steel or wrought iron; shall be constructed tight and of a minimum thickness according to the capacity as specified in the following table:

1	to	285 gallons	16 gauge
286	to	560 gallons	14 gauge
561	to	1,100 gallons	12 gauge
1,101	to	4,000 gallons	7 gauge
4,001	to	12,000 gallons	¼ inch
12,001	to	20,000 gallons	5/16 in.
20,001	to	30,000 gallons	⅜ inch

2—Gravity and Pressure Tanks

A tank having capacity of not more than two hundred and seventy-five gallons may be located in the cellar or basement, provided it is secured to prevent floating as follows:

a—Two vertical pipes not less than ¾ inch will be run from basement floor to ceiling or joists, securely held in place by standard floor flanges at top and bottom. These uprights will be so placed that they will be tangent to the side of the tank, the uprights to be not more than 12 inches from the ends of the tank.

b—Two horizontal pipes not less than ¾ inch will be

PENBERTHY DEALERS MAKE MONEY!

The Penberthy Model R Cellar Drainer is no new thought—it has been on the market for years, and more than that, it has been serving satisfactorily in every installation.

There isn't any wonder about the money plumbers make on Penberthys — you'll understand, too, when you put a few to work.

Write your jobber or us direct for complete information and prices.

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PENBERTHY INJECTOR COMPANY, 1260 Holden Ave., Detroit, Michigan

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Never-Split
Varnished Wood
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The Label That Means The Most
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For nearly a quarter of a century the Never-Split Wood Seat has stood as the standard of comparison throughout the industry. The company that makes them, makes nothing but toilet seats. All its *resources are devoted to producing* the finest seats that can be built.

Because *more* Never-Split Seats are made and sold than any other brand, important production economies are possible. As a result you can sell an extraordinary seat for the price of an ordinary seat—*and reap full profit.*

Let us send you samples and interesting information about our trade-building service on the Never-Split Complete Line of toilet seats. *Write us today.*

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EVERNU Hard Rubber Seats

The perfect seat where hard usage is expected and long term economy is important. Special hard rubber molded by the patented Evernu process into a seamless, jointless, everlasting unit. Practically indestructible.

Easily cleaned with dilute alcohol. Jet black or mahogany. Models for every type of bowl. Unconditionally guaranteed.

No. 120

Varnished Wood and White "Duco"

Made of finest selected oak and gum, kiln dried. So accurate are the joints and so vise-like the grips of the special bolts, that these seats can never split or come apart. In mahogany and natural grains, and all-white "Duco."

PERMA-WHITE and COLORO—Sheet Covered

Extra heavy pyralin, reinforced at points of wear, eliminates cracking, splitting or peeling. Washing with hot or cold water and soap won't change its color. *Perma-White* finished in glistening pure white. *Coloro* finished in pastel blues, greens, yellows and brighter shades to match any decorative scheme.

NEVER-SPLIT SEATS

"Perma-White" Sheet Pyralin | "Coloro" Tinted Sheet Pyralin | "Evernu" Hard Rubber | White "Duco" Sprayed Pyralin | Varnished Wood Patented Construction

run from each of the above-mentioned uprights not less than two inches into the masonry wall and securely fastened. These horizontal pipes will be so placed that they will be tangent to the top of the tank.

c—Provided that the tank is located so that it is impossible to have one long side adjacent to a masonry wall or other suitable fireproof partition work, the description *given above shall provide for four vertical pipes, i. e., two* on each side. The horizontal pipes to be placed between uprights instead of between uprights and masonry wall.

d—No above-ground tank shall be located nearer than 10 ft., measured horizontally, from any fire or source of flame and shall be supported by incombustible material. Gravity feed to the flame is limited to a 55-gallon tank and *is only permitted if approved automatic safeguards* are provided to prevent abnormal discharge of oil at the burner. Burners equipped with an approved device which positively eliminates the flow of oil through the burner nozzle when the burner is not in operation, and depends on auxiliary power for the delivery of oil to the nozzle, may be direct connected to the 275-gallon tank, which *tank shall not be more than 30 inches above cellar or* basement floor.

3—Underground Storage Tanks

a—Tanks having an aggregate capacity greater than 275 gallons must be buried. All buried tanks within the building must be located at least four (4) ft. from the *boiler and two (2) ft. below the lowest level of any base*ment, cellar, vault, pit, elevator shaft, cesspool, sand trap or other excavation, within fifteen (15) ft. of the tank.

b—Where tank is outside building and over fifteen (15) ft. from any basement, cellar, vault, pit, elevator shaft, cesspool, sand trap or other excavation, except as hereinafter provided, same may be buried with top of tank *not less than two (2) ft. below the surface of the ground.* Where tank is outside building and within fifteen (15) ft. of basement, cellar, vault, pit, elevator shaft, cesspool, sand trap or other excavation, top of tank must be below the lowest level of such basement, cellar, vault, pit, elevator shaft, cesspool, sand trap or other excavation.

c—Where basement or cellar is over ten (10) ft. deep, this must be taken up specifically with the fire marshal.

d—Oil from such tanks, whether located inside or outside building, shall be drawn by means of a pump with suction pipe drawing through the top of the tank.

e—An approved anti-syphon arrangement must be installed at the highest point in the supply line of burners *that pump directly from a storage tank where the top of* the storage tank is above the level of the pump.

4—Manhole

Manholes, if used, shall have covers securely fastened in order to make access difficult by unauthorized persons. No manhole shall be used for filling purposes.

5—Setting of Tanks

a—Tanks must be kept away from all walls a minimum distance of four feet. When excavations are below foundation, the edge of ditch must be outside of 60-deg. line from bottom of foundation. Any installation requiring a shorter distance, application must be made at the fire marshal's office before the installation is made.

b—Where rock, water or other physical obstacles are encountered in making installation, special approval will be required when the top of the tank is above the floor.

6—Filler Pipe

a—All tanks shall have a filler pipe extending from tank to outside of building and provided with proper cap.

b—All underground tanks shall, where possible, have a filler pipe extending from the tank to the curb when necessary to cross sidewalk in order to fill.

Support the Stack!

THE "MEYER"
INSERTABLE JOINT

Patented April 20, 1926

The powerful set screws grip the pipe and "takes up the slack in the stack."

Costs No More

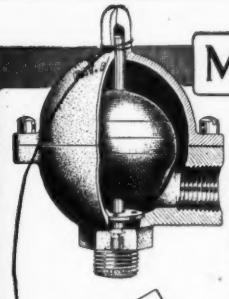
The ONLY insertable joint that supports the stack and holds the line at any height in the telescope hub.

Made Exclusively by

SOMERVILLE IRON WORKS

Warehouses and Sales Offices at

Somerville, N. J. 3637 S. Ashland Ave. 9502 Quincy Ave.
Chattanooga, Tenn. Chicago, Ill. Cleveland, O.
300 Madison Ave., New York, N. Y.



Model No. 1

It's a *mind* - relief valve!

That's what the customer will say *about a Red Top Relief Valve, Model No. 1*, after you have installed it in his domestic hot water supply. By relieving soaring pressures automatically, a Red Top relieves the mind of all fear of explosions. The home owner need not fear disaster as a result of neglecting to turn off a heater.

The action of a Red Top is easy to explain. It works on the gravity principle, pressure in the system forcing a nickel weighted piston off the seat. The lead ball in *Model No. 1* is cast in *four sections allowing* relief at 50, 75, 100 and 130 lbs. (It should be set at least 25 lbs. higher than city water pressures).

Red Tops bear the approval of the Underwriters' Laboratories, America's foremost testing organization.

Approved by Underwriters' Laboratories

NEPTUNE METER CO.
50 E. 42nd St. New York, N.Y.
Branch Offices in Principal Cities

Red Top Relief Valves

MADE BY
NEPTUNE METER CO.
50 EAST 42 ND. ST. NEW YORK, N.Y.

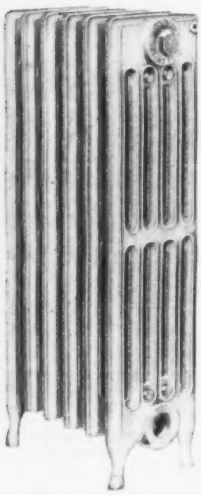
Red Top Relief Valve Model No. 2

This valve, which relieves at 30 lbs forms the basis for a highly efficient and economical pressure system of hot water heating.

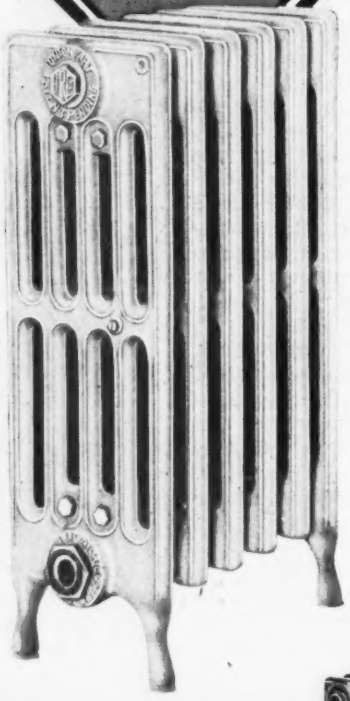
In UNION there Is PROFIT

A complete line—a good name—real demand!

Five Tube Four Heights



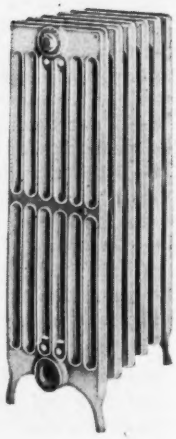
UNION ART RADIATORS

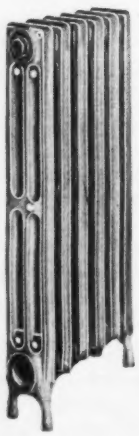


SO MANY plumbers find our display poster a further help in selling this popular radiator. A complete line, a good name, ready demand—tie up to these features by letting your prospects know you handle Union ART Radiators.

THE PLUMBER, contractor or builder who selects Union ART Radiators has the advantage of variety as well as of other distinctive factors! The Union ART is a line designed to SELL and to make ready profits wherever shown!

Seven Tube Four Heights



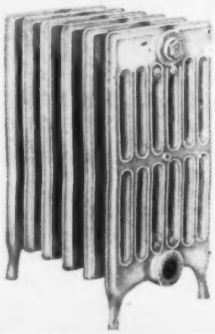


Three Tube Four Heights

UNION RADIATOR COMPANY
Johnstown, Pennsylvania

Branch Warehouses:

NEW YORK
PHILADELPHIA
CHICAGO
BALTIMORE
HARRISON, N. J.



Window Model

Write for THE SPECIAL POSTER!

7—Vent Pipe

All tanks shall have a vent pipe not less than one (1) inch in diameter, extending from the tank to the outside of building, terminating in a return bend, screened with brass or bronze screen, not less than thirty mesh per linear inch; pipe to extend twelve (12) ft. or more above the surface of the ground and placed not less than three (3) ft. away from any window or other opening.

8—Protection to Piping

All piping used in connection with domestic oil burners shall be run as directly as possible, shall be without unnecessary pockets, rigidly secured, and all joints shall be tight and made up with soft solder, litharge and glycerin or shellac. Standard, full weight, wrought iron, steel or brass pipe with substantial fittings shall be used and shall be carefully protected against mechanical injury. Where it is necessary for these pipes to cross the floor they must be buried. All pipes on floor must be protected with concrete or concentric pipe.

9—Oil Level Indicating Device

a—On all tanks inside of building, whether above floor or buried, no sounding or measuring device which must be open to cellar to ascertain level of oil, is permitted. On installations of this kind, approved gauge must be provided.

b—No oil tank used in connection with a domestic fuel oil burner shall be equipped with a glass gauge, the breaking of which will permit the oil to escape from the tank.

10—Strainers

Strainers shall be used in the supply line to burners. These strainers must be so constructed that cleaning may be accomplished without dismantling the pipe line.

11—Pilot

a—The use of acetylene, or any other gas possessing a wider range of explosibility in admixture with air than coal gas, water gas or oil gas, is prohibited for use in the gas pilot of a domestic oil burner.

b—On all burners that are using electric or gas connection or both, tags bearing the following inscription must be attached to the meter, **"Oil Burner Attached, Do Not Shut Off Before Notifying Occupant, By Order of the Fire Marshal."** These tags are to be red, not less than two inches in width and four inches in length, printed on both sides.

12—Furnaces and Boilers

a—Stoves or ranges originally designed for use of fuel other than oil should not be used in connection with oil burners unless spaces in which vapors might collect are adequately vented.

b—Dampers which may entirely close the chimney uptake are prohibited. Damper area should be carefully determined in each case, but in no case shall it be greater than 70 per cent of the internal cross sectional area of the uptake.

c—No combustible material shall be stored within 10 ft. of furnace.

13—Instruction Card

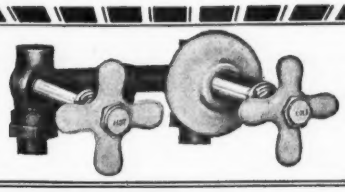
a—All domestic oil burners shall be installed and operated in accordance with the rules and directions of the manufacturers thereof, which shall be subject to the approval of the fire marshal.

b—A printed copy of the rules and instructions of the manufacturers shall be conspicuously posted near the domestic oil burner.

14—General

a—Installations in places of public assembly are governed by different regulations and the matter must be

TABASCO [Hot Stuff]
Steel Water Heaters Heat Twice as Much
KEWANEE BOILER COMPANY
Kewanee Illinois


The Hudson Concealed Shower Body Features
1—*red brass* made from ingot melted electrically
2—tested against 150 lbs. water pressure
3—china adjustable flanges with N. P. shanks
4—non-cemented china handle screwed rigidly by china-index button
5—by-pass connections and union couplings
HUDSON BRASS WORKS, INC., BROOKLYN, N.Y.

PERFECTION
FLOOR & CEILING PLATES
Neat, lasting jobs can be accomplished with the use of "No. 10" Perfection Floor and Ceiling Plates. The simplicity of installation doubly recommends them to the plumber who must save time.

Insist on Perfection No. 10 from your Jobber.
The BEATON & CADWELL MFG. CO.
Established 1894
NEW BRITAIN, CONN.

O-B Brass Valves
are made in the following styles:

Flexitite Disc Gate Valves	Radiator Valves
125 lb. Standard, Non Rising Stem, No. 20	Flexitite Disc, Gate, No. 50
125 lb. Standard Rising Stem, No. 21	Steam, No. 30
100 lb. Light Standard, No. 25	Hot Water, No. 40
	Packless Graduated, No. 35
	Union Elbows, No. 45

Globe, Angle and Check Valves	Brass Disc	Renewable O-B Disc
150 lb. Standard	.....	No. 10
125 lb. Standard	No. 1	No. 15
100 lb. Light Standard	No. 1½	.....
Competition	No. 2	No. 3
Lock and Shield	No. 5	No. 5

Flexitite Disc Gate Valve Patented
OHIO BRASS COMPANY
Mansfield, Ohio
Ohio Brass Co.

The Hotstream
HEATS IN A HURRY
TRADE MARK REG.
WATER HEATER

KEROSENE HEATERS—
WICK BURNER TYPE

Quadruple coils of copper and the patented Kerogas Burner (Hotstream is the only Water Heater licensed to use it) insure the greatest efficiency.

Lights instantly at the touch of a match—is noiseless, sootless and extremely economical.

Made in 3 sizes—write for complete information.

THE HOTSTREAM HEATER COMPANY
9502 Richmond Rd. "Makers of Heaters that Heat" Cleveland, Ohio

DEPENDABLE
SOIL PIPE and FITTINGS
SAACO
Sanitary Co. of America
LINFIELD, PA.

MYERS Self-Oiling Power Pumps
For General Service

Safety and low cost of operation, uniform service without attention, increased capacity over comparative sizes of old type pumps, have popularized Myers Self-Oiling Power Pumps in domestic, agricultural, commercial and industrial fields to such an extent that we now build them in Twelve Sizes to meet installation, motive and volume requirements. If interested in power pumps for home, farm, mill, mine or factory, investigate MYERS Self-Oiling Pumps.

Catalog and Information on request.

The F. E. Myers & Bro. Co., Ashland, Ohio
Manufacturers of
Myers "Honor-Pumps", Hay Tools, and Door Hangers

$66 to $145

GASTON DeRIDDER,
Detroit Plumber,
says:

"The installation of Ever-Hot Heaters means a good clean profit and there are no comebacks from the users. That's why I sell and install them."

EverHot Heater Co.
Detroit, Michigan
Branches and Sales Offices in 44 Cities in United States and Canada

taken up with the fire marshal's office before application is made for same.

b—Where a 2-unit system is installed, a Lalor, Schutte-Koerting, or other approved valve, must be placed on the discharge side of the first pump.

c—Any change from these requirements must be taken up with the fire marshal before installation is made.

By JAMES O. MULHERN,
Fire Marshal.

An Obscure Heating Problem

(Continued from Page 35)

ond, must leave the boiler at a velocity of not more than 20 ft. per second, 36 sq. in. of free area must be provided in the boiler outlets. The nearest pipe size would be two 5-inch outlets which have a combined area of 40 sq. in.

The next step is to determine the size of piping necessary to deliver the required amount of steam to the radiators without excessive drop in pressure between the boiler and the last radiator. This can be quite accurately determined from the formula of flow of steam through pipes, but this process is hardly necessary on a job of this size. Squaring the diameter and multiplying by 100 will give a safe load in sq. ft. for runs not exceeding 200 ft. in developed length for mains 2-inch to 3-inch. Above 3-inch the amount may be increased according to carrying capacity. As an example: The square of 3 is 9, multiplied by 100 equals 900, a safe load for a 3-inch line up to 200 ft. developed length.

If the length of run from the boiler to the last radiator, including added length for fittings and valves, exceeds 200 ft., this amount must be reduced in proportion to length.

The usual practice is to reduce the amount of radiation for 300 ft. run to 82 per cent of the amount for 200 ft. run. The relative carrying capacity of pipe is not determined alone by the area, but by a combination of area and wall friction. The carrying capacity factor of a 3-inch pipe is given as 175 and a 4-inch as 380, by a well-known authority, so a 4-inch pipe will carry 2.17 more steam than a 3-inch under similar conditions. As we accept 900 sq. ft. as correct for a 3-inch line, then a 4-inch will carry 1,953 sq. ft.

Circuit No. 2 on the drawing has an actual length of 170 ft., to which must be added 130 ft. for fittings and valves, a total of 300 ft. The amount a 4-inch line will carry of 300 ft. is 82 per cent of 1,953 sq. ft. or 1,601 sq. ft., so it seems the 4-inch line is a proper size to use for both circuits as they are approximately the same length and carry nearly the same amount of radiation.

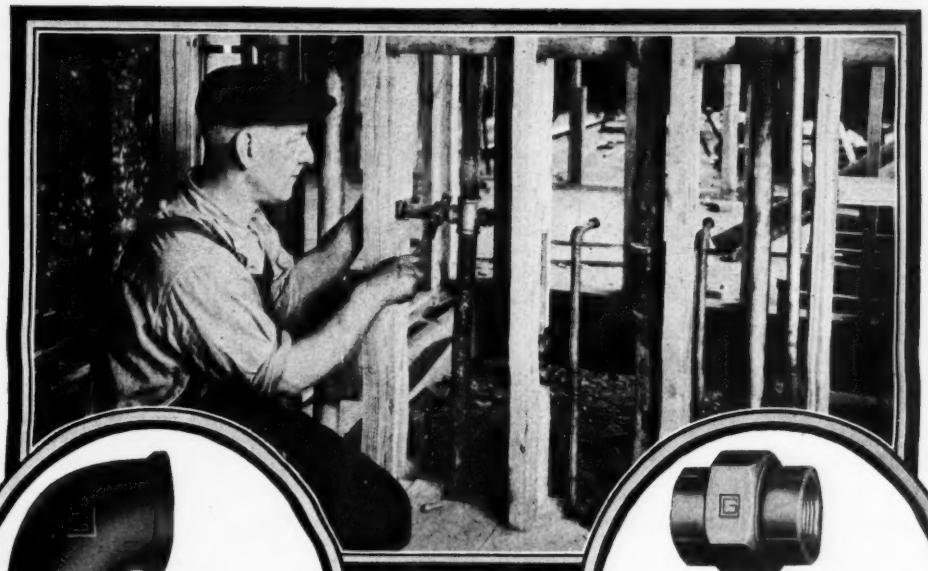
Under ordinary conditions, dry returns or returns above the water line may be one-half the diameter of the steam mains they serve.

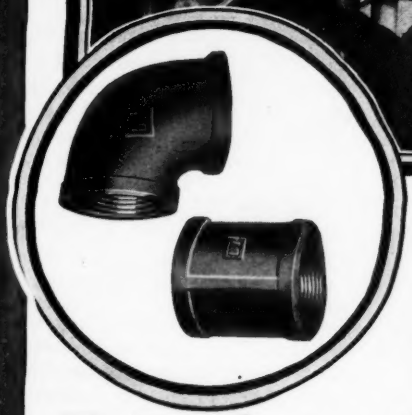
All radiators in one-pipe system should be connected through valves of the sizes as given in the manufacturers' tapping schedule with runouts from the main one size larger.

In our opinion, the three larger ceiling radiators on this job should have both supply and return connections as *shown on the drawing, which was not done in the original* installation.

The lines for supplying the two connected wings should be taken from the top of the main, pitching down, and connected either into the main proper or into the return as shown on the drawing, with the water of condensation *and the steam flowing in the same direction.*

Salt Lake City, Utah.—The Will Rees Plumbing Company, 164 Regent Street, has been awarded a large plumbing and heating contract at the Westminster College.





A few of the typical Square "Gee" fittin's used on the above installation.

Friends to the Boys on the Job

SQUARE "Gee's" are real friends to the boys on the job. Their clean-cut threads *grab quick* and *hold tight* —eliminate all the cussin' and wrasslin' with balky connections. They save the boys' time and temper and help them to turn out *better work faster.*

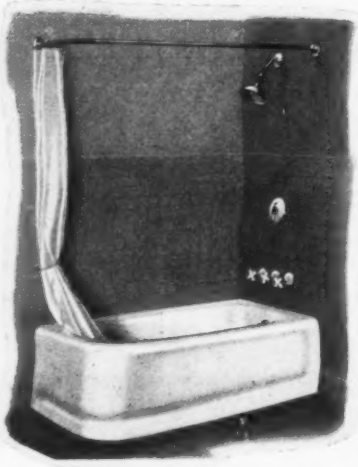
Square "Gee's" will win your everlasting friendship, too. Accuracy and precision in manufacture combined with rigid inspection will inspire your confidence in their unseen performance ability to *keep connections always tight.* And their easy workin' qualities speed up the job, lower time and labor costs and boost your profits.

Get next to these friendly fittin's—say Square "Gee's" to your jobber's salesman.

THE GRABLER MANUFACTURING COMPANY · *Cleveland, Ohio*
New York · Chicago · San Francisco · Los Angeles

SQUARE Malleable Iron

"GEE" PipeFITTINGS



Easier than Ever, Today, to Sell

Good Enameled Ware

Today, people think for themselves. They investigate quality carefully — especially in buying a product that lasts many years, such as enameled ware.

Rundle Ware sells on merit. Point by point comparisons of beauty in color and design, convenience, and durability almost invariably lead to sales of Rundle Ware.

Its pure-white color is in perfect harmony with white tiled floors and walls. New designs and processes keep the line constantly in the van of progress.

The Rundle dealer, wherever he is located, builds a profitable, ever-growing business. And he knows, positively, that the Rundle policy of building good will with the trade is never changing.

Write for catalog and name of Rundle jobber nearest you.

Rundle Mfg. Company
Milwaukee, Wis.
Southern Representative:
P. B. WALLACE
302 Sixth Ave. North, Nashville. Tenn.

RUNDLE
PLUMBERS' SANITARY ENAMELED WARE

What the Plumbing Inspector Stands For

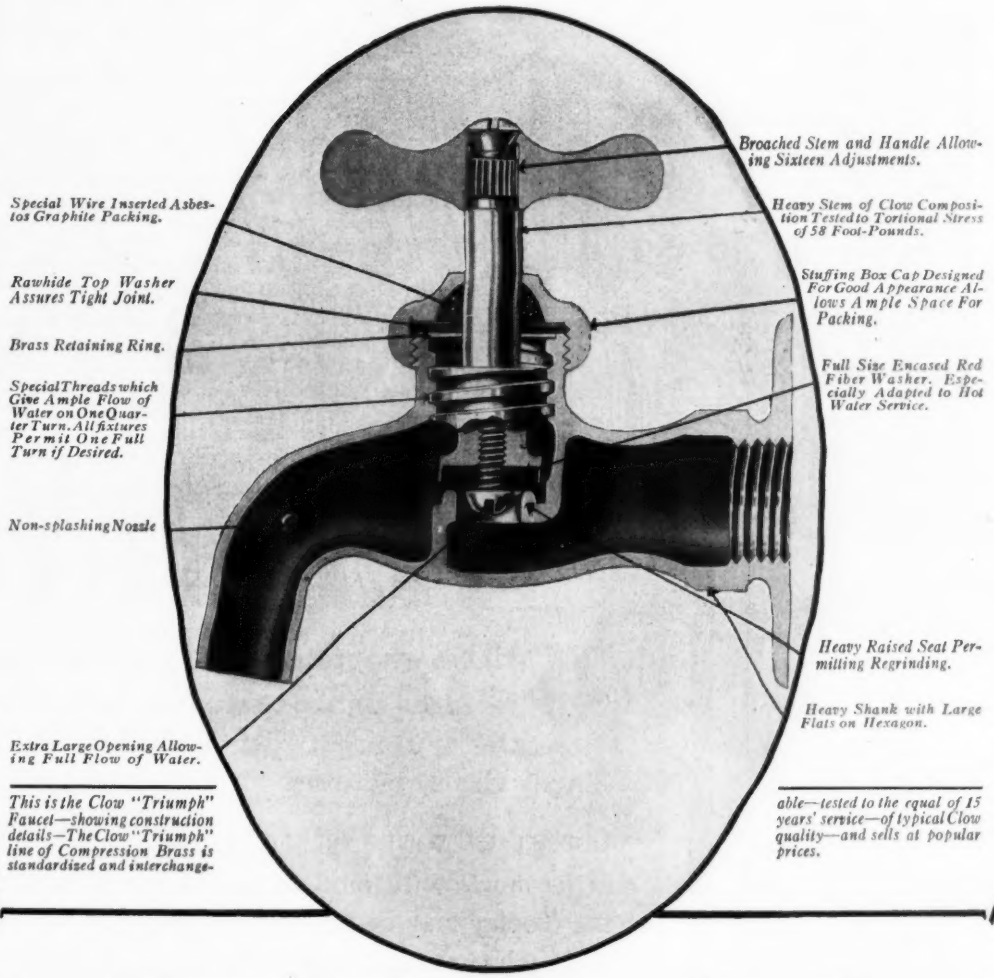
Excerpts from a Booklet Published Recently by the Florida Society of Plumbing Inspectors

THE OFFICE of plumbing inspector is a measure of protection employed by the public in protecting themselves against disease transmitted by the respiratory and intestinal tract and generally in securing and maintaining sanitary conditions involving the safe disposal of human waste and the waste products of manufacturer. He is the skilled instrument used in combating and fighting controllable diseases such as typhoid, cholera, diarrhoea, hook worm, tuberculosis and many others. His office spells prevention and ofttimes the sole cure for insanitary conditions and for disease control. The authority vested in him and correctly used results in: First, prevention; second, protection; third, safety; fourth, lower initial and maintenance cost; fifth, stabilized plumbing inspection; sixth, order in plumbing practices in lieu of chaos; seventh, standardization.

The qualifications of a plumbing inspector are many. He of necessity must be a skilled mechanic, well grounded in the fundamental practices of his profession. He must understand the application of theory to everyday practice. He must have a working knowledge of hydrostatics and hydraulics. He must understand the relationship between public health and plumbing and between bacteriology, septic tanks, plumbing, and the appurtenances thereto. He must act in an advisory capacity to the plumber, architect, general contractor and the public at large in matters pertaining to plumbing, sewage disposal and water supplies. He must be somewhat of an accountant and be able to submit intelligent reports of his activities as a public servant. He ofttimes must act as arresting officer and prosecutor. He must possess good judgment, be impartial, fair and exercise firmness in the performance of his duties, keeping in mind always his duty to his employer, the public. He must shun factionalism and align himself with honesty of purpose and truth. He must be able to design and re-design the most complicated plumbing installations in accordance with city and state plumbing codes, state hotel commission, city and state health regulations. He must command the respect and secure the co-operation of plumbing dealers, journeyman plumbers and wholesale plumbing houses. He must be a plumber of at least ten years' experience and a master of his trade and business.

Thirty-three plumbing inspectors of the state of Florida, realizing their responsibility to the public and aware that only by united action, co-ordination and co-operation can any measure of success be attained, have formed the Florida Society of Plumbing Inspectors. The aims of the society are high but practical. They have the wholehearted support of the better elements in state plumbing circles, the dealer, the journeyman and the wholesaler. With these factors harmoniously working together for the common good of the entire public, success is assured and must crown their labor. That their efforts are for the public welfare is unquestionable. Those who align themselves against the high purposes of these public-spirited citizens, do so from a warped conception of their duty to the public.

The four principal figures in this forward step in plumbing are agreed that a lowered building cost can be secured and that the confusion in regulations with the consequent loss entailed thereby can only be remedied, first, by standardization of municipal plumbing codes as has been done by the state-wide code; second, the standardization of ma-


Broached Stem and Handle Allowing Sixteen Adjustments.
Special Wire Inserted Asbestos Graphite Packing.
Heavy Stem of Clow Composition Tested to Tortional Stress of 58 Foot-Pounds.
Rawhide Top Washer Assures Tight Joint.
Stuffing Box Cap Designed For Good Appearance Allows Ample Space For Packing.
Brass Retaining Ring.
Special Threads which Give Ample Flow of Water on One Quarter Turn. All fixtures Permit One Full Turn if Desired.
Full Size Encased Red Fiber Washer. Especially Adapted to Hot Water Service.
Non-splashing Nozzle
Heavy Raised Seat Permitting Regrinding.
Heavy Shank with Large Flats on Hexagon.
Extra Large Opening Allowing Full Flow of Water.

This is the Clow "Triumph" Faucet—showing construction details—The Clow "Triumph" line of Compression Brass is standardized and interchangeable—tested to the equal of 15 years' service—of typical Clow quality—and sells at popular prices.

Are Your Dollars Bound in Brass?

Every piece of brass on your shelves is worth more to you than you actually paid for it.

First, each piece ties up money you might be using to better advantage somewhere else.

Second, you know what happens to a brass stock during the year—a stem is taken from one piece, a washer from another—some pieces seem to just stray away—and often, those that are left must be polished before they can be installed.

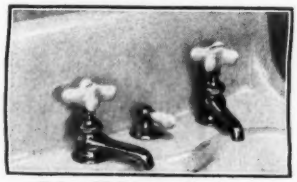
Such wastes and costs can be reduced by short run buying.

Instead of complete stock—buy a half dozen or dozen pieces at a time. Clow "Triumph" Brass is stocked at the Clow Chicago Plant, ready for immediate shipment.

Any Clow salesman can get short orders to you as fast as you need them. And he will call on you at regular intervals.

In this way, you free those dollars now "Bound in brass"—and you save those wastes and costs with which you are no doubt only too familiar.

Ask to have a Clow salesman call—and try a short order of Clow Triumph Brass. It will help you to cut down waste and plumbing costs.



"Triumph" Lavatory Combination

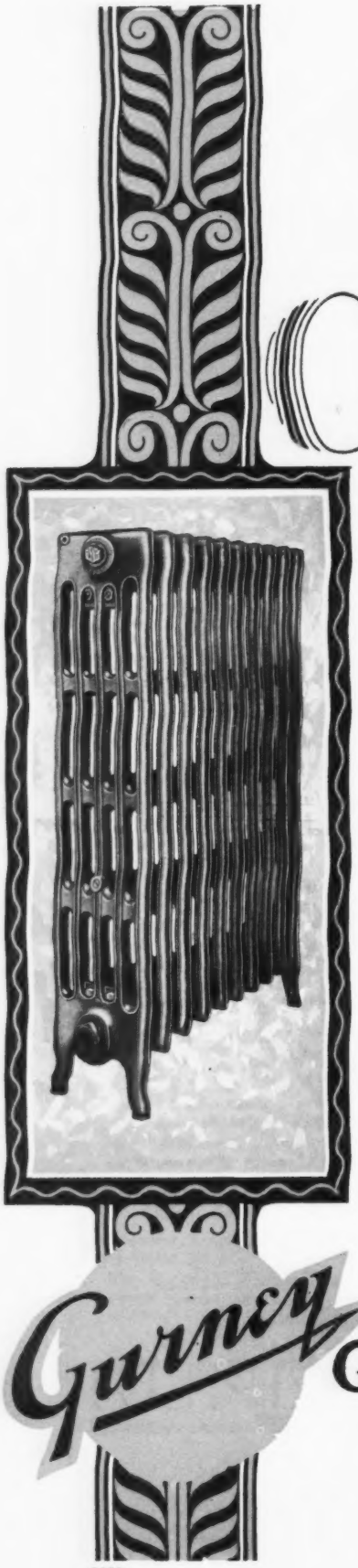
JAMES B. CLOW & SONS, 201-299 N. Talman Avenue, Chicago

Sales Offices in principal cities

CLOW

PREFERRED FOR EXACTING PLUMBING SINCE 1878

The New COPLEY RADIATOR



THOSE who recognize and appreciate that the useful can also be attractive will realize this to its fullest extent in the new line of Gurney Copley radiators.

Constructed with a symmetry of design which is in harmony with modern decorative principles, the Copley may be finished to carry out any desired color effect.

As a convenience to the heating contractor Gurney Copley radiation is now furnished in four widths, namely, *three tube, four tube, five tube, and six tube,* each pattern being furnished in all the standard heights. This great variety of sizes enables the heating contractor to fulfil the requirements of any heating installation.

A new Copley leaflet has just been developed giving full information. Write us at once for your copy — and our latest price list.

Gurney

GURNEY HEATER M'F'G COMPANY.

GENERAL OFFICES • BOSTON, MASS.

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New York City Office and Warehouse
Manley Street, Cor. Anable Avenue
Long Island City

GURNEY HEATER M'F'G CO.
Richmond Office
Cor. East Main and Ninth Streets
Richmond, Va.

GURNEY HEATER CO., Inc.
Philadelphia Office and Warehouse
Cor. 21st St. and Washington Ave.
Philadelphia, Pa.

1116

terials, city, state and nation wide, the first steps of which have been taken via a state plumbing code; third, standardization of sewage treatment tanks and materials entering into the construction thereof by a state code; fourth, impartial enforcement of plumbing regulations.

Florida is one of the first states in the Union to take the forward step in lowering building cost via the adoption of the twenty basic principles adopted by the subcommittee on plumbing of the building code committee of the United States Department of Commerce, in a nation-wide endeavor to eliminate waste in building operation.

The American Society of Sanitary Engineering, the Florida Society of Plumbing Inspectors, Florida Association of Master Plumbers, and the better elements in plumbing circles in our country and state have put their stamp of approval on the basic principles. The Florida state plumbing code spells standardization. Standardization spells lower building cost and uniformity in regulations.

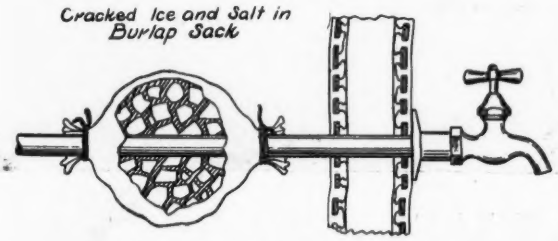
Each city, town and hamlet in our state can aid in furthering this standardization movement by adopting and by rigidly enforcing all the provisions of this designed standardized state code. It was formulated by some of the best plumbing and engineering minds in our state. The self-sacrifice entailed in its birth has been great and without compensation to those who labored to make it a reality.

To sum up, the plumbing inspector is a combination guardian and policeman of health and plumbing costs or both. At one and the same time the best liked and most hated man in plumbing circles, the most cussed and discussed individual in his profession. If a plumbing inspector measures up to the high standard of his particular niche in public life, he deserves and should command your support. With it he can further the program of advancement outlined above, aid in the prevention of disease, suffering and death, substantially reduce building cost and bring order out of the chaos now existing in plumbing regulations and codes.

Practical Problems—No. 34
$3 paid for acceptable ideas

One Way to Move a Faucet

"ONE way to remove a faucet," said a master plumber from the West, "is to freeze the water in the pipe. In one instance, recently, it was necessary for my men to take out a faucet entirely. There was no way to shut off the water, so we got an old burlap



sack, cut it apart, then packed ice and salt around the pipe as shown in the illustration above. This stopped the flow of water long enough for us to cut the pipe, thread the end and put on a new faucet."

Some plumbers make use of this very often but, since it is not described in any text book so far as I know, there are probably a good many master plumbers who never thought of using this idea.

NOW!
is the time
TO SELL
HONEYWELL

Don't wait until snow is in the air and coal in the bin to to talk *Honeywell. Now* is the time—when business is not heavy—to call on home owners in your neighborhood or community and point out to them the conveniences of automatic control, and the desirability of installing it *now*—instead of waiting for cold weather. Every home owner will welcome the added economy, convenience and comfort of *Honeywell.*

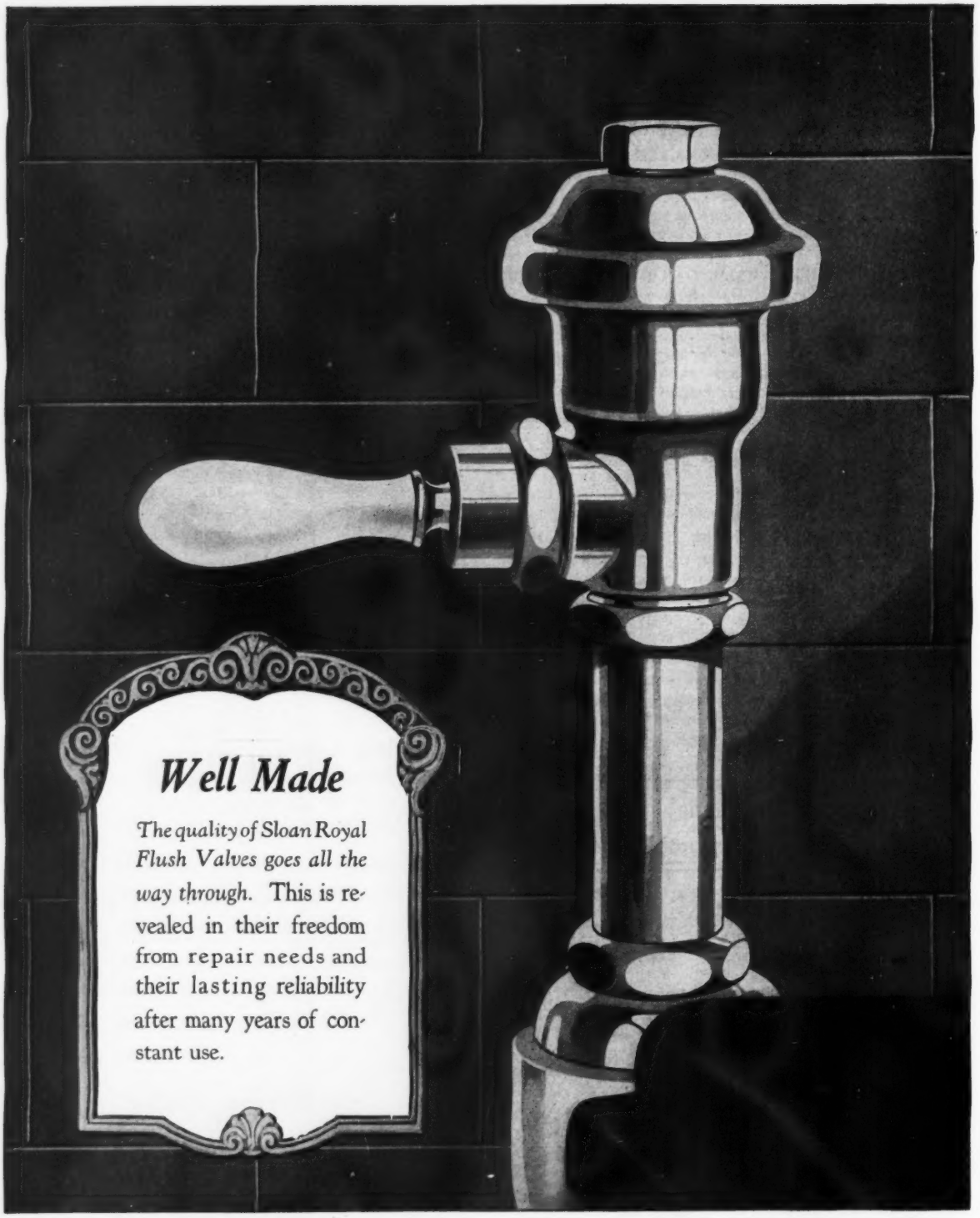
The accuracy of *Honeywell* controls is so assured that leading manufacturers of heating boilers today recommend *Honeywell* exclusively; and, of the important automatically controlled domestic oil burners, a substantial proportion is equipped with *Honeywell.*

No progressive heating merchant can ignore this. 'Phone or call on your prospects *today!*

HONEYWELL HEATING SPECIALTIES COMPANY
Wabash, Indiana

H

HONEYWELL
Temperature Regulators


Well Made
The quality of Sloan Royal Flush Valves goes all the way through. This is revealed in their freedom from repair needs and their lasting reliability after many years of constant use.

SLOAN VALVE CO.

CHICAGO

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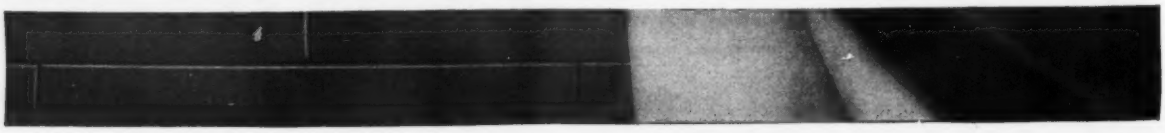
Boston, Mass.
Buffalo, N. Y.
Butte, Mont.
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Texas.
Denver, Colo.
Des Moines, Iowa
Detroit, Mich.
Durham, Conn.
Fort Wayne, Ind.
Indianapolis, Ind.
Jacksonville, Fla.
Kansas City, Mo.
Los Angeles, Cal.
Memphis, Tenn.
Miami, Fla.
Milwaukee, Wis.
Minneapolis, Minn.
Nashville, Tenn.
Newark, N. J.
New Orleans, La.
New York City, N. Y.
Oklahoma City, Okla.
Philadelphia, Pa.
Pittsburgh, Pa.
San Francisco, Cal.
Seattle, Wash.
St. Louis, Mo.
Tampa, Fla.
Washington, D. C.
Richmond, Va.



MARKETS

BUSINESS CONDITIONS IN LEADING JOBBING CENTERS

CHICAGO

Current consumption needs are in good volume in the Chicago territory, and wholesalers are ordering steadily and taking in to stock for quick turn-over substantial quantities of most plumbing and heating materials and fixtures. Building activity is brisk, and with a large volume of construction now in the finishing stage and a large volume, also, still being started, contractors' requirements are such that the movement of plumbing and heating goods is uninterrupted and gives little cause for complaint in its size. Wholesalers and manufacturers indicated that the past week had given a good account of itself, reports of increasing business being frequent.

In some lines it is noticeable that wholesalers are willing to build their stocks a little beyond the minimum working levels which have been the general rule, and the explanation evidently is that known needs in the near future justify such an action. At the same time, business is being done on the familiar buy-as-needs-arise basis in most cases, improvement being discernible in the average size of orders rather than in any tendency to anticipate. Exceptions can be found in the case of boilers and radiators and, to a lesser extent, in soil pipe, brass goods and staple pottery, where recent price changes have brought some buyers into the market with orders that will carry well into the future.

The period price advance in boilers and radiators took place on August 1. A decline on the larger sizes of range boilers was announced by one large maker. With these exceptions, prices of commodities covered in this report held unchanged during the last few days. There seems to be no strengthening in the wholesale market in Chicago.

Practically all sources of supply are in position to deliver promptly, manufacturers as a whole having become adjusted to the prevailing mode of buying and carrying adequate, assorted stocks to meet the quick delivery requests which are placed.

Soil Pipe

Jobbers' turn-over of soil pipe is reported good, and their stocks give evidence of substantial ordering during the recent low-price period. Foundries are still shipping tonnage on such orders, and, as a result, new buying is not as yet very active. However, it is said that there is not much more low-priced business on foundries' books, and current consumption needs are justifying jobbers in releasing shipments to stock steadily. Prices did not change during the week.

Steel Pipe

Steel pipe is moving steadily and in fairly good tonnage. Increased activity is noted by some mills, while the general situation is one of small-lot deliveries to jobbers' stocks to keep them assorted and adequate for the trade's needs. Mills are operating at a fairly healthy rate and have ample holdings to insure prompt shipments. Mill prices are firm and unchanged.

Wrought Iron Pipe

July was a good month in the Chicago district, one large company's tonnage exceeding that of last July as well as representing a steady increase in recent weeks. Mills are producing steadily and shipping promptly on specified dates. Wholesalers' stocks are kept well assorted and are ample for current pick-up needs. Mill prices are firm and unchanged.

Enameled Ware

Week to week business in enameled ware seems to develop nothing new, most jobbers taking in ware only in sufficient amount to keep abreast of the trade's demands. With finishing work becoming more active, however,

ORDERS INCREASE IN SIZE AS WORK PROGRESSES

EITHER a sustained volume of business or a slight increase is the week's report from most of the important jobbing centers. Finishing work is becoming more active and, with a good amount of new work starting as well, wholesalers are enjoying a demand from the trade which is moving a large quantity of most lines. They, in turn, are increasing the size of their orders in a number of cases and, quite frequently, are expanding their holdings in anticipation of the business which is known to be forthcoming. The month of July was an active one, judging from early, incomplete reports.

Manufacturers as a whole have adjusted production to take care of the frequently placed, quick delivery orders which are the general rule, and, with practically no exceptions, can ship directly from ample stocks as goods are required.

Following the recent reduction on 30- and 40-gallon range boilers, one large manufacturer last week issued a new sheet showing declines in the prices of the larger size boilers. The period price advance on boilers and radiators was effective, as usual, on August 1. Steel pipe, wrought iron pipe and enameled ware prices, from the manufacturer, continue to hold the levels established over four years ago. Soil pipe prices are maintaining the base which was effective throughout 1926. Prices of staple pottery continue at the low level which became effective the latter part of May.

wholesalers are apparently willing to place orders of larger size than has been the case in recent months, and as a result factory shipments show a slight increase lately. Manufacturers are meeting shipping dates promptly, their stocks being ample to take care of orders as placed. Prices have not changed.

Pottery

A good business is reported in specials, new orders holding up well and shipments on old being released in nice volume. As for staples, many jobbers' stocks are showing the results of heavier-than-ordinary buying at the current low prices, although the general attitude is still to put off ordering until actual needs arise. Potters' stocks of staples are good-sized, and quick deliveries can be made. No change in prices was announced during the week.

Range Boilers

Jobbers are not carrying stocks of range boilers that run into any size, but are picking up necessary requirements at local warehouses or ordering in small lots from factories. The total volume moving reaches only fair figures, judging from reports. There is an ample supply of range boilers at sources, and needs are being taken care of promptly. The low prices on 30- and 40-gallon range boilers, announced several weeks ago, prevail, and, during the last week, one large manufacturer announced a reduction in prices of the larger sizes.

Plumbers' Brass Goods

Most jobbers who ordered well ahead earlier in the year have specified shipment on practically all outstanding goods and their stocks are in good shape for the heavier trade demand which is noticeable. Others are buying in good volume for immediate shipment, and manufacturers report fairly active ordering as needs apparently grow larger and closer. Shipping specifications are being met promptly from ample resources at factories, with the exception of a few tubular items on which several manufacturers report temporary shortages. Prices did not change during the week, and reports of concessions are still frequent.

Boilers and Radiators

A rather quiet week followed the active placing of covering orders against the recent price advance, and at present most manufacturers have large order books, with shipping specifications so far not very numerous. The period price advance on August 1 was reported to call forth only a normal release of shipments. Current needs are being met satisfactorily from adequate stocks in hands of makers. No further developments in the price situation were noted.

NEW YORK

Volume of sales is apparently showing little improvement in the New York City district, a combination of the usual July and August slowness and a definite recession in the building program making itself felt in both the dollar volume and the tonnage being moved from wholesalers' warehouses. One of the larger jobbers in the northern part of Manhattan, for instance, who keeps a running stock record and a very close tab on sales, states that at almost any time during July the volume of sales during the month was less than for the same period of June. There are exceptions to this, notably in Brooklyn and Queens, where the strike earlier in the season has retarded work enough so that much of the installations ordinarily taking place earlier in the year are now being made. There are also communities in the Greater New York district, but not in New York City proper, where the building program is not only holding up, but is actually showing gains over 1926 figures.

Reports that contradict those received from wholesalers are also received. Steel pipe salesmen, for instance, had a very good July, following a good business during June. This of course might be partially credited to a well-sustained heating business. Cast brass manufacturers also report a revival of interest, after slowness during the earlier weeks of the month.

Prices generally have not changed since our last report, except on some sizes of range boilers, several companies making reductions of varying percentages on some of the larger sizes that were not affected by recent sheet revisions. Deliveries of most products can be made without undue delay.

Soil Pipe

There is a noticeable lack of activity in new demand for this product, due in large measure to the fact that a great percentage of wholesalers covered for seasonal requirements during the lower prices that prevailed approximately 30 days ago. July, however, will approach a record for the amount of business placed, and shipments amount to a large tonnage. Prices apparently are firm on the most recently established base, though, as yet, they have not been subjected to any severe test. Shipments are being made approximately on schedule time.

Steel Pipe

July has been a good month for most of the steel mills, one concern stating it has been the best month of the year in this district, eclipsing the good business done during June. Most of the demand still consists of rush-shipment business, due to wholesalers' policy of keeping stocks at minimum working levels. There are few delays in deliveries. The same price levels are being maintained by the mills, with wholesale figures continuing to show a tendency toward softness.

Wrought Iron Pipe

Demand can hardly be characterized as better than fair at this period, although the month has produced a volume that comes close to figures for the average July. At the present time, there is a temporary scarcity of building of the larger type, which naturally is reflected in the orders received for wrought iron pipe. The average order for quick shipment can be filled without difficulty. Prices have not been changed.

Enameled Ware

Producers of enameled ware point to a slackening in the call for their products in this district during the past two weeks, due, no doubt, to the lack of immediate need by master plumbers, as an increase in installations is quickly reflected in orders placed with manufacturers. Prices are unchanged from those in effect for many months. However, there is still a tendency to shade prices when large amounts are involved, it is reported. Early shipments can be made.

Pottery

Many manufacturers of pottery report another good week from the standpoint of orders received, this being the second seven-day period in a row where receipts exceeded shipment possibilities. The average pottery has large enough stocks on hand to care for this increase in business, however. These plentiful inventories make it possible for the average maker to satisfy wholesalers' requests for immediate shipments with little difficulty. Prices have not changed during the week.

Plumbers' Brass Goods

One of the larger distributors of cast brass in this territory states there is a revival of interest in quotations on his product, after a rather slow period during the early part of July, and that his firm is doing better than a fair

amount of business for this period of the year. The average report received, while not quite so optimistic, is that demand is on a slight upgrade. There has been little change in the tubular situation, with a fair amount of releases coming through, the majority calling for small amounts. Price sheets have not been changed during the week. Quick deliveries can be made.

Range Boilers

Some of the larger sizes of boilers, unchanged at the time of the recent price revisions, were affected by new price sheets brought out by several makers. These changes were by no means uniform, the reduction differing with almost every size affected. Demand continues to show comparatively small activity, with some manufacturers apparently making no active efforts to secure a large volume of business. Early deliveries can still be made.

Boilers and Radiators

The interest created by recent increases of prices on boilers and radiators had hardly died down when buying was again accelerated, this time by the regular period price change which went into effect on August 1. While some makers stated that this advance had comparatively little effect on placement of orders, others found that wholesalers were anxious to take advantage of this extra margin. It is comparatively easy for manufacturers to make deliveries as wanted.

PHILADELPHIA

As the last of July approached, there appeared to be a slight upturn in business in the Philadelphia district, the northern part of the territory benefiting more than the lower section. This had not developed into a pronounced buying movement, but was of sufficient moment to cause representatives of manufacturers making most of the products covered by this report to speak of a slight acceleration in sales. Finishing goods were particularly noticeable in the increased activity, as a great deal of the home building which has been going on has reached the stage where enameled ware, pottery and plumbers' brass goods are now needed.

While the average wholesale concern had not yet totalled its figures for the first six months when this report was written, there is little doubt that the average distributor will show a falling off in volume for the first half in comparison with that during the same period in 1926. This is particularly true in Washington, Baltimore and the Virginias, as well as in Florida and other southern "boom sections." There is a tightening of the credit reins apparent, especially in the Baltimore district, where wholesalers are said to be steadily cutting down on the number of contractors they will sell on a credit basis.

The only price change of moment during the week was the reduction on some sizes of range boilers that had not been affected by recent sheet changes. On other main products quotations averaged about the same as they have for some time.

Soil Pipe

Manufacturers' predictions of small current demand following the placement of considerable business the early part of the month and the last of June have been borne out in the last couple of weeks. Wholesalers either have fair stocks on hand or have orders on foundries' books for early shipment. Prices appear to be uniform. Deliveries are not delayed.

Steel Pipe

While steel pipe is not moving freely, the shipments into the Philadelphia territory aggregate a very respectable amount, when the great number of small orders are totalled. The major portion of the business continues to consist of small orders for early delivery, few distributors buying for future needs. Prices have not changed, distributors quoting at a base that leaves a very narrow margin of profit.

Wrought Iron Pipe

As is usual, the last few days of the month saw a greatly accelerated demand, after a sluggish period that lasted from the first of the month to beyond the 20th. A considerable portion of the shipment is direct to the job, with the average wholesaler chary about adding materially to his stock on hand. Prices are holding the level that has been maintained several years. There are no delays in deliveries.

Enameled Ware

Demand for enameled ware shows little change from week to week. About the same amount of ware is sold, it seems, but different sections and different wholesalers in the same sections are in and out of the market. It is seldom that any considerable percentage of the buyers desire shipments at the same time. This sort of a market makes it possible for manufacturers to maintain good stocks at their local warehouses, and there is a good quantity picked up from these points. Prices have not been changed. Good stocks at point of origin insure quick deliveries.

Pottery

Plumbing contractors need a little more pottery at this time than they did a month ago, and the shipments into the territory have naturally kept pace with this increased need. However, as many wholesalers still have some staple ware on hand, ordered some time ago, the buying movement for this class of ware, especially washdown bowls and tanks, has not been greatly accelerated. Forward buying at this time is largely confined to special ware, which is to be used on large contracts. Price schedules remain the same as a week ago. Regular ware is being forwarded to buyers without undue delay.

Plumbers' Brass Goods

Manufacturers of cast brass state that there is now a fair quantity of new business coming in, this mostly consisting of immediate delivery orders. Due to the fact that fewer wholesalers contracted for large quantities of cast brass than in former years, there are less orders on makers' books and a corresponding increase in spot orders. Tubular brass business shows little change from last week's report, with a fair amount of goods moving, principally in small orders. Rumors of price increases on cast brass had not materialized. Prompt shipments can be made.

Range Boilers

Decreases on many of the larger sizes of range boilers were put into effect by several makers during the last week. Those sizes affected are types that were not changed when the last sheet was issued. Demand is not large. Makers have good stocks and can ship promptly.

Boilers and Radiators

Wholesalers hung back momentarily when the recent price increase was announced, and it was not until the final days during which protection was offered that they placed any considerable amount of business. Demand increased in a rush when it did come, however, probably being influenced to some extent by the period price change effective August 1. The newer price level now appears to be practically uniform. Prompt shipments can be made with little difficulty.

Salt Lake City, Utah.—The James Plumbing and Heating Company, 62 Postoffice Place, has been awarded a *$13,000 plumbing and heating contract at the north yards* of the Oregon Short Line Railroad Company.

Special Notice to Plumbing

The manufacturers whose names appear below and on the opposite page have authorized us to send to the plumbing and heating contractors, upon request, their loose catalog sheets for use in the binders distributed through the National Trade Extension Bureau.

These loose sheets are reprints of catalog pages appearing in "Domestic Engineering Catalog Directory." They are uniform in size —8½x10⅝ inches—printed on a good grade of light paper and punched to fit the binder.

If you have the binder and desire loose catalog sheets, write Domestic Engineering Co., 1900 Prairie Avenue, Chicago, on your letterhead, giving the names of concerns listed below whose lines you are interested in, and we shall be glad to send you the sheets without charge. If you are not using the binder and wish information regarding it, write to the National Trade Extension Bureau of Evansville, Indiana.

Abendroth Bros. ..... Port Chester, N. Y.
Acme Adjustable Pipe Hanger Mfg. Co. ..... Richmond, Va.
Acme Asbestos Covering & Flooring Co. ..... Chicago, Ills.
Acme Frost Proof Closet Mfg. Co. ..... Baltimore, Md.
Albrass Co. ..... Coxsackie, N. Y.
American Brass Co. ..... Waterbury, Conn.
American Manganese Bronze Co. ..... Holmesburg, Pa.
American Pipe Tool Co. ..... Chicago, Ills.
American Radiator Co. ..... Chicago, Ills.
American Spiral Pipe Works ..... Chicago, Ills.
American Steam Pump Co. ..... Battle Creek, Mich.
Armstrong Bros. Tool Co. ..... Chicago, Ills.
Armstrong Mfg. Co. ..... Bridgeport, Conn.
Automatic Gas Steam Radiator Co. ..... Pittsburgh, Pa.
Badger & Sons Co., E. B. ..... Boston, Mass.
Barnes Tool Co., The ..... New Haven, Conn.
Barrett Mfg. Co., James ..... Boston, Mass.
Bashlin Co. ..... Warren, Pa.
Bay Ridge Specialty Co., Inc. ..... Trenton, N. J.
Beaton & Cadwell Mfg. Co., The ..... New Britain, Conn.
Beaton & Corbin Mfg. Co., The ..... Southington, Conn.
Becker Mfg. Co., The ..... Marietta, Ohio
Beneke Mfg. Co. ..... Chicago, Ills.
Benson Co., Inc., Alex R. ..... Hudson, N. Y.
Bignall Co., The ..... Medina, N. Y.
Blake Specialty Co. ..... Rock Island, Ills.
Blue Seal Chemical Co. ..... Roselle, N. J.
Boosey Mfg. Co., Norman ..... Detroit, Mich.
Borden Co., The ..... Warren, Ohio
Bradley Washfountain Co. ..... Milwaukee, Wis.
BRE Mfg. Co. ..... Boston, Mass.
Bridgeport Brass Co. ..... Bridgeport, Conn.
Brunswick-Balke-Collender Co., The ..... Chicago, Ills.
Buffalo Gas Radiator Corp. ..... No. Tonawanda, N. Y.
Burnham Boiler Corp ..... Irvington, N. Y.
Butler Mfg. Co. ..... Minneapolis, Minn.
Butler, Thos. F. ..... Lorain, Ohio
Cabco Iron Works, Inc. ..... Gowanda, N. Y.
Capitol Brass Works ..... Detroit, Mich.
Carty & Moore Engineering Co. ..... Detroit, Mich.
Case & Son Mfg. Co., W. A. ..... Buffalo, N. Y.
Celina Mfg. Co ..... Celina, Ohio
Central Radiator Co. ..... New York City
Chamberlain Co., The ..... Pittsburgh, Pa.
Chemical Toilet Corp. ..... Syracuse, N. Y.
Chicago Faucet Co., The ..... Chicago, Ills.
Chicago Granitine Mfg. Co. ..... Chicago, Ills.
Chicago Pipethread Machine Co. ..... Racine, Wis.
Cleveland Brass Mfg. Co., The ..... Cleveland, Ohio
Cleveland Heater Co. ..... Cleveland, Ohio
Columbia Radiator Co. ..... McKeesport, Pa.
Commonwealth Brass Corp. ..... Detroit, Mich.
Compound Injector & Specialty Co. ..... Chicago, Ills.
Conemaugh Iron Works ..... Latrobe, Pa.
Continental Heater Corp. ..... Dunkirk, N. Y.
Crampton-Farley Brass Co. ..... Kansas City, Mo.
Crist & Schilken Co. ..... Pittsburgh, Pa.
Croll & Son, Jesse G. ..... Philadelphia, Pa.
Crown Die & Tool Co. ..... Chicago, Ills.
Curtin Valve Co., A. F. ..... Medford, Mass.
Curtis & Curtis Co., The ..... Bridgeport, Conn.
Curtis Specialty Co. ..... Salt Lake City, Utah
Dahlquist Mfg. Co. ..... South Boston, Mass.
Dail Steel Products Co. ..... Lansing, Mich.
Dart Mfg. Co., E. M. ..... Providence, R. I.
Davis Engineering Corp. ..... New York City
Decatur Pump Co. ..... Decatur, Ills.
Dececo Co., The ..... Boston, Mass.
Detroit Lubricator Co. ..... Detroit, Mich.
Detroit Torch & Mfg. Co. ..... Detroit, Mich.
Dick Brothers, Inc. ..... Reading, Pa.
Dixie Flashing Co., Inc. ..... Birmingham, Ala.
Dixie Metal Products Co., Inc. ..... Birmingham, Ala.
Dole Valve Company ..... Chicago, Ill.
Donley Mfg. Co., The ..... Cleveland, Ohio
Donnelly Mfg. Co. ..... Malden, Mass.
Dube Boiler Co. ..... Chicago, Ills.
Dunham Co., The ..... Berea, Ohio
Eastern Foundry Co., The ..... Boyertown, Pa.
Ebinger Sanitary Mfg. Co., D. A. ..... Columbus, Ohio
Economy Heater Co. ..... Chicago, Ills.
Economy Pumping Machinery Co. ..... Chicago. Ill.
Electro Engineering Co., Inc. ..... Richmond Hill, N. Y.
Eljer Co. ..... Ford City, Pa.
Elkhart Iron Works ..... Elkhart, Ind.
Enterprise Brass Works ..... Muskegon, Mich.
Estabrook's Sons, R. ..... South Boston, Mass.
Evans, Morgan ..... Pittston, Pa.
Everitt Co., The ..... Boston, Mass.
Excelso Products Corp. ..... Buffalo, N. Y.
Exeter Brass Works ..... Exeter, N. H.
Florence Stove Co. ..... Boston, Mass.
Fritz Manufacturing Co. ..... Chicago, Ills.
Gerard Mfg. Co. ..... Dickson City, Pa.
Gerstein & Cooper Co. ..... South Boston, Mass.
Gerstein & Sons, H. ..... South Boston, Mass.
Gleockle, Jr., A. F. ..... Rochester, N. Y.
Goulds Pumps, Inc. ..... Seneca Falls, N. Y.
Grand Haven Brass Foundry ..... Grand Haven, Mich.
Graves, W. L. ..... Hatfield, Mass.
Greenfield Tap & Die Corp. ..... Greenfield, Mass.
Grinnell Co., Inc. ..... Providence, R. I.
Haas Co., Philip ..... Dayton, Ohio
Hammond Brass Works ..... Hammond, Ind.
Handon Boiler Corp. ..... New York City
Hays Mfg. Co ..... Erie, Pa.
Healey Brass Foundry Co., Peter ..... Evansville, Ind.
Heap & Sons, Wm. ..... Grand Haven, Mich.
Hercules Chemical Co., Inc. ..... New York City
Hetzel, J. G., Estate of ..... Newark, N. J.
Hindley Mfg. Co. ..... Valley Falls, R. I.
Hollands Mfg. Co. ..... Erie, Pa.
Holyoke Heater Co. ..... Holyoke, Mass.
Honeywell Heating Specialties Co. ..... Wabash, Ind.
Hotstream Heater Co. ..... Cleveland, Ohio
Hudson Brass Works, Inc. ..... Brooklyn, N. Y.

and Heating Contractors

Imperial Brass Mfg. Co. ..... Chicago, Ills.
Ireland & Matthews Mfg. Co. ..... Detroit, Mich.
J. R. S. Specialties Mfg. Co., Inc. ..... Patchogue, N. Y.
Jefferson Union Co. ..... Lexington, Mass.
Jenkins Brothers ..... New York City
Johns-Manville Corp ..... New York City
Johnson Mfg. Co. ..... Detroit, Mich.
Johnson-Washburn Co. ..... Boston, Mass.
Jones Hollow Ware Co. ..... Baltimore, Md.
Josam Mfg. Co. ..... Cleveland, Ohio
Juvenile Wood Products, Inc. ..... Fort Wayne, Ind.
Keeney Mfg. Co., The ..... Newington, Conn.
Kelly Valve Co. ..... Grand Haven, Mich.
Kemp Mfg. Co., C. M. ..... Baltimore, Md.
Kennedy Valve Mfg. Co. ..... Elmira, N. Y.
Kenney-Cutting Products Corp. ..... New York City
Kent Co., F. C. ..... Irvington, N. J.
Keystone Brass Works ..... Erie, Pa.
Keystone Pottery Co. ..... Trenton, N. J.
Kitson Co. ..... Philadelphia, Pa.
Knott Mfg. Co. ..... Tell City, Ind.
Kokomo Sanitary Pottery Co. ..... Kokomo, Ind.
Kortick Manufacturing Co. ..... San Francisco, Cal.
Koven & Bro., L. O. ..... Jersey City, N. J.
Kretschmer Mfg. Co. ..... Dubuque, Iowa
Kupferle Foundry Co., John C. ..... St. Louis, Mo.
Lambertville Pottery Co. ..... Lambertville, N. J.
Lavelle Rubber Co. ..... Chicago, Ills.
Lawson Co., The F. H. ..... Cincinnati, Ohio
Lawson Mfg. Co. ..... Cleveland, Ohio
Leavitt Machine Co. ..... Orange, Mass.
Lenk Mfg. Co. ..... Boston, Mass.
Leonard-Rooke Co. ..... Providence, R. I.
Liquid Veneer Corp. ..... Buffalo, N. Y.
Lissberger & Son, Inc., Marks ..... Long Island City, N. Y.
Luzerne Rubber Co., The ..... Trenton, N. J.
Mal'eable Iron Fittings Co ..... Branford, Conn.
McCoy Mfg. Co., Inc. ..... Garwood, N. J.
McGurrin Supply Co. ..... Grand Rapids, Mich.
McRae & Roberts Co., The ..... Detroit, Mich.
Maddock's Sons Co., Thomas ..... Trenton, N. J.
Manning, Maxwell & Moore, Inc ..... New York City
Mfg. Equipment & Engineering Co. ..... Framingham, Mass.
Martin & Sons, H. P. ..... Owensboro, Ky.
Marvel Machine & Brass Works ..... Cleveland, Ohio
Meneley-Diederich Co., Inc. ..... Los Angeles, Cal.
Michigan Pipe Co. ..... Bay City, Mich.
Milford Iron Foundry ..... Milford, Mass.
Milwaukee Valve Co. ..... Milwaukee, Wis.
Minneapolis Heat Regulator Co. ..... Minneapolis, Minn.
Misener & Irving Mfg. Co., Inc. ..... Syracuse, N. Y.
Modern Utilities Co. ..... Harrisburg, Pa.
Modine Mfg. Co. ..... Racine, Wis.
Molby Boiler Co. ..... New York City
Morton Mfg. Co. ..... Chicago, Ills.
Nason Mfg. Co. ..... New York City
National Steel Tank & Mfg. Co. ..... Bradford, Ills.
Neptune Meter Co ..... New York City
Newell Mfg. Co. ..... Irwin, Pa.
Niagara Radiator & Boiler Co. ..... North Tonawanda, N. Y.
Northwestern Chemical Co., The ..... Marietta, Ohio
Nustone Products Corp. ..... Union City, N. J.
Nye Tool & Machine Works ..... Chicago, Ills.
Ohio Brass Co. ..... Mansfield, O.
Ohio Heater Co., The ..... Columbus, Ohio
Paine Co. ..... Chicago, Ills.
Para Rubber Co. ..... Newark, N. J.
Penn Engineering Co., The ..... Philadelphia, Pa.
Phoenix Brass Foundry ..... Irvington, N. J.
Pittsburgh Engineering Co ..... Jeannette, Pa.
Plummer-Huff Company ..... Napoleon, Ohio
Plomb Tool Co. ..... Los Angeles, Cal.
Polygon Products Co. ..... Boston, Mass.
Powers Regulator Co. ..... Chicago, Ills.
Providence Fittings Co., The ..... Boston, Mass.
Randolph-Clowes Co., The ..... Waterbury, Conn.
Rawlplug Co., Inc., The ..... New York City
Reading Brass Works ..... Reading, Pa.
Reed Mfg. Co. ..... Erie, Pa.
Reeves Specialty Co. ..... Denver, Colo.
Rhode Island Fittings Co. ..... Providence, R. I.
Richmond Engineering Co. ..... Richmond, Va.
Richmond Foundry & Mfg. Co., Inc. ..... Richmond, Va
Richmond Radiator Co. ..... New York, City
Ridge Tool Co. ..... Elyria, Ohio
Riverside Foundry & Galvanizing Co. ..... Kalamazoo, Mich.
Roberts Brass Mfg. Co., The ..... Detroit, Mich.
Robinson Mfg. Co., The ..... Cleveland, Ohio
Rockford Brass Works ..... Rockford, Ills.
Royal Brass Mfg. Co., The ..... Cleveland, Ohio
Rumsey Pump Co., Ltd ..... Seneca Falls, N. Y.
Russell Mfg. Co., Inc., John M. ..... Naugatuck, Conn.
Russell & Co., W. A. ..... New York City
Rutland Fire Clay Co. ..... Rutland, Vt.
Sands Mfg. Co. ..... Cleveland, Ohio
Sanitary Bath Curtain Mfg. Co., Inc ..... New York City
Sanitas Mfg. Co. ..... Boston, Mass.
Sarco Co., Inc. ..... New York City
Scaife & Sons Co., Wm. B. ..... Oakmont, Pa.
Scott Valve Mfg. Co. ..... Detroit, Mich.
Sherwood Brass Works ..... Detroit, Mich.
Simplex Mfg. Co. ..... Chicago, Ills.
Smith, Inc., H. Romeyn ..... New York City
Standard Stone Co. ..... Brooklyn, N. Y.
Standard Tank & Seat Co. ..... Camden, N. J.
Standard Union Co. ..... Boston, Mass.
Standard Water Systems Co. of N. J. ..... Hampton, N. J.
Stark Pump Co. ..... Detroit, Mich.
Sterling Faucet Co. ..... Newcomerstown, Ohio
Stringer Brothers Co. ..... Chicago, Ills.
Structural Slate Co. ..... Pen Argyl, Pa.
Superbestos Co., The ..... Chicago, Ills.
Swett Iron Works, A. L. ..... Medina, N. Y.
Taylor Co., Halsey W., The ..... Warren, Ohio
Teck Manufacturing Co. ..... Chicago, Ills.
Test-Tite Co. ..... Philadelphia, Pa.
Thatcher Co. ..... Newark, N. J.
Thermal Appliance Co., Inc. ..... New York City
Tillery's Little Janitor Clock Co. ..... Newark, N. J.
Toledo Pipe Threading Machine Co. ..... Toledo, Ohio
Trageser Steam Copper Works, John ..... New York City
Trenjer Specialty Co. ..... Trenton, N. J.
Trenton Brass & Machine Co. ..... Trenton, N. J.
Tryco Products, Inc. ..... Westfield, Mass.
Universal Smokeless Boiler Co. ..... Ravenna, Ohio
Van Arnam Mfg. Co. ..... Fort Wayne, Ind.
Vanderman Mfg. Co. ..... Willimantic, Conn.
Vinco Co., Inc. ..... New York City
Vogel Co., Joseph A ..... Wilmington, Del.
Wade Iron Sanitary Mfg. Co. ..... Chicago, Ills.
Walker Dishwasher Corp. ..... Syracuse, N. Y.
Walworth Company ..... Boston, Mass.
Ware Coupling & Nipple Co. ..... Ware, Mass.
Warnock Manufacturing Co. ..... Worcester, Mass.
Warren Tool & Forge Co. ..... Warren, Ohio
Washington Metal Products Co. ..... Washington C. H., Ohio
Wesely Co., Chas. ..... Chicago, Ills.
Wessels & Sons, D. D. ..... Detroit, Mich.
Western Wire Products Co. ..... St. Louis, Mo.
Wheeling Machine Products Co. ..... Wheeling, W. Va.
White Flushing Valve Mfg. Co. ..... Denver, Colo.
White Steel Sanitary Furniture Co ..... Grand Rapids, Mich.
Whitlock Coil Pipe Co. ..... Hartford, Conn.
Wilks Mfg. Co., S. ..... Chicago, Ills.
Williams, George E. ..... Minneapolis, Minn.
Williams & Co., J. H. ..... Buffalo, N. Y.
Wood Mfg. Co., John ..... Conshohocken, Pa.
Woodward-Wanger Co. ..... Philadelphia, Pa.
Worcester Brush & Scraper Co. ..... Worcester, Mass.
"X" Laboratories ..... New York City
Yeomans Brothers Co. ..... Chicago, Ills.
Yost Mfg. Co. ..... Meadville, Pa.

NEW ENGLAND

The past seven day period has seen continuing improvement in shipments of plumbing and heating materials from most sources and jobbing points. According to the average report, the month as a whole granted quite satisfactory volumes and, in the majority of cases, July sales were considerably in excess of June figures. A survey of manufacturers' activities since January 1st indicates near parity with the business received during the first seven months of last year, which dissipates the belief entertained by the less optimistic during previous months that the plumbing and heating industry would not be so well favored as during 1926. Considering the progress made in construction, especially of the residential type, during the past 60 days, it is generally assumed that a higher level will come to exist during the next several months, gradually receding towards the end of the year.

It is noted by manufacturers of some commodities that wholesalers are keeping somewhat ahead of the rising demand by ordering in larger quantities and by laying in stocks which will sufficiently protect them against any sudden increase in withdrawals. Few specifications for delivery in the future are offered makers, commitments of this nature being confined mostly to brass goods with scattered coverings on soil pipe and pottery reported. Coming into the finishing season, movements of enameled ware from factories to jobbers and thence to plumbing contractors show constant improvement, necessitating larger reserves at sources and better-sized stocks at distributing centers. Wholesalers' inventories are in the main, of good proportions and are evenly balanced. Supplies in makers' hands are sufficient to warrant quick deliveries.

An advance in brass pipe of one quarter of a cent per pound was effected on July 27 and the usual period advance of 2½ per cent on house heating boilers and radiators took place at the close of business on July 31. With these exceptions prices remained unchanged.

Soil Pipe

Plumbing contractors continue to make good inroads on wholesalers' soil pipe stocks as new construction is becoming more active. Tendencies on the part of distributors to augment their supplies on hand have been apparent for the past month or two until now the point is reached where their holdings are generally of good dimensions and of good assortment. Some makers are still shipping on orders taken during the low price period but these will be completed within a short space of time. On the whole, satisfactory volumes are being granted foundries and, although slight interruptions are felt in some instances, good delivery service is maintained. Prices have not been changed.

Steel Pipe

Consumption of steel pipe does not vary appreciably although each succeeding week shows a slightly quickened demand. Distributors' racks are evenly balanced and are amply equipped to satisfy the present requirements of the plumbing and heating trade. A good seasonal tonnage is reported by mills which consists mostly of frequent rush shipments for replacement purposes. Mill stocks are in good shape and unextended deliveries are offered. The market is firm with no price changes.

Wrought Iron Pipe

Representatives of prominent mills state that their bookings for the month of July showed good increases over previous months although the tonnage moved during June was generally satisfactory. They report further that the year's sales thus far are practically on a par with those of the corresponding months of last year. Production at sources is about normal for this time of year and quick shipments are easily effected. Most wholesalers have good stocks on hand and are keeping them well proportioned. The market is firm with unchanged prices.

Enameled Ware

Jobbers' commitments have been of a somewhat freer nature during the past month, orders placed with makers being not anticipatory but rather for present and next 30-day requirements. One large manufacturer reports that on July 1 his sales records showed a decrease from last year, but that, at the present time, this deficiency has been overcome and the comparative volumes are about even. Other makers are enjoying almost equally good business. Ample and well varied assortments are maintained at sources of manufacture and at jobbing points, insuring prompt shipments. No price changes have occurred.

Pottery

Interest in staple ware has not been stimulated to any great extent as jobbers are buying in quantities only sufficient to cover their present wants and are not speculating on future demand from their trade. However, their present stocks are ample to cause no delays in their shipping schedules. Specified operations require high-grade ware in amounts which, increasing as the season progresses, are boosting the averages of many potteries. Shipments are being made from sources as requested. No price changes have been made.

Plumbers' Brass Goods

Wherever price advantages are to be gained, wholesalers are placing cover orders for delivery within the next two to three months. Blanket specifications in makers' hands are being drawn on only as jobbers' stocks become depleted, and, while demand from the plumbing trade is continually brightening, no large supplies are being accumulated. Manufacturers are producing steadily, eliminating any possibilities of near future shortages and are able to ship immediately on receipt of order. Prices are firm and unchanged.

Range Boilers

Small-lot buying has comprised the activities reported by makers during the past week. Wholesalers are not enthusiastic over laying in large stocks, but are equipped to handle satisfactorily whatever demands are imposed upon them. Production has been curtailed in some instances, but supplies at sources are sufficient to afford quick deliveries. No price changes have been made and the market is firm.

Boilers and Radiators

Following a rather inactive period, makers are pleased with the large number of orders which they have booked during the past several weeks, attributing this revival of good business to contractors' and distributors' desires to be covered on their near distant requirements prior to the recent price advance and also to avoid the period advance of 2½ per cent which was effected on August 1. Despite this increase in the number of their orders, factories have accumulated ample reserve supplies from which immediate deliveries are granted.

PACIFIC COAST

Coast markets during the past week as a whole did not develop any different features from those which have prevailed for the past few months. While there is a substantial amount of new building work progressing it has not reached the volume that was anticipated earlier in the year. Architects' offices, however, report that they have considerable work on the boards and there is some hope that the building for the last half of the year will exceed that of the first half.

Distributors generally are buying their merchandise very conservatively and keep their stocks at a minimum. Price conditions vary in the different jobbing centers and continue to be soft in some and more firm in others.

Soil Pipe

The week to week demand for this commodity does not vary greatly and on the whole may be termed fair. Most purchases are in small lots for actual requirements, with very little if any forward purchasing being done. Southern California jobbers advanced their prices about 5 per cent on this commodity during the week. Other jobbing centers' prices remained unchanged.

Steel Pipe

Steel pipe demand shows very little change and, if anything, is falling off to some extent. There is, however, considerable foreign pipe reaching the trade, and this of course is having its effect on the ordinary distributor's business. Most distributors have well balanced stocks and can take care of the trade's requirements without delay. Prices remain unchanged.

Enameled Ware

While the gross volume of enameled ware business might be termed satisfactory, this ware is being distributed by so many different agencies that the ordinary distributor's business is not large. Jobbers, as a rule, are carrying only minimum stocks and continue in their policy of purchasing only in small lots from nearby manufacturers as the need for merchandise is created. Prompt deliveries can be obtained on practically all patterns of ware through these sources. Prices to the trade continue at the lowest point which they have reached for some time past and remain unchanged.

Pottery

Buying of pottery by the trade continues at a moderate rate with very little indication of any change in the demand in the near future. Jobbers generally are carrying sufficient stocks to take care of present demands and can secure prompt replacement on all merchandise sold from nearby factories without delay. Prices to the trade are based on present replacement costs and remain unchanged.

Plumbers' Brass Goods

Conditions surrounding the distribution of this commodity remain unchanged, and while the total consumption of brass goods continues in good volume, the sale is divided between so many different agencies that the sales of many individual distributors are gradually becoming less. Prices continue to keep to a low level and remain unchanged.

Range Boilers

There is very little change in the demand for range boilers which continues to be mostly in small lots for actual requirements. Prices to the trade are based on present replacement costs and remain unchanged.

The Metal Market

	Aug. 2	Average June, 1927	Average Apr., 1927	Average 1926
PIG IRON—				
No. 2 foundry, Chicago, Furnace	$19.50	$20.00	$20.00	$21.65
PLATES AND SHEETS—				
Steel boiler plates, Pittsburgh, per lb.	1.80c	1.80c	1.85c	1.89c
Blue annealed sheets, No. 10, Pittsburgh, per lb.	2.25c	2.25c	2.20c	2.40c
Black sheets, No. 24, Pittsburgh, per lb.	3.00c	3.00c	2.80c	3.17c
TIN—				
Straits tin	65½c			
COPPER—				
Prime Lake, f. o. b. refinery	13¼c			
Electro, delivered	13⅛c			
LEAD—				
Chicago	6.60c			

The Old Metal Market

Dealers' Buying Prices

	Per lb.		Per lb.
Aluminum clippings	19 c	Copper, light	9½c
Block tin	61½c	Copper, uncrucibled wire	10¼c
Brass, light	6½c	Faucets and valves	9 c
Brass, heavy mixed	7¼c	Lead, heavy	6 c
Brass, red	9½c	Solder joints	10⅛c
Copper, crucible	11 c		

NOTE: Prices are those quoted on Monday of this week.

The Stock Market

Quotations furnished by Frazier, Jelke & Co., Chicago

Par Value	1927 High	Low	Quotations of August 2, 1927	*	Bid	Asked	Last
25	132⅝	110½	American Radiator Co., com	A	130	131	130
100	137	131½	American Radiator Co., pfd	A	137¼	138	137¼
50	48¼	41½	Anaconda Copper Mining Co	A	45½	46	45½
NP	38⅞	26	Brunswick-Balke-Collender Co	A	29½	30	29½
NP	94	42	A. M. Byers Co., com	A & F	81	83	83
100	112	105¾	A. M. Byers Co., pfd	A & F	110	110¾	110
100	120	115½	Century Electric Co , com	G	115	.....	116
100	106	101	Century Electric Co., pfd	G	100	103	101
50	48¼	43⅞	Chicago Nipple Mfg. Co., "A"	B	48¼	49	48½
50	35½	31	Chicago Nipple Mfg. Co., "B"	B	35¼	36	35¼
25	52	47	Crane Company, com	C	49	50	49
100	121	116½	Crane Company, pfd	C	119½	121	119½
100	95	84½	Detroit Brass & Malleable Works	D	90	95	95
20	30	26¼	Eagle-Picher Lead Co	I	26	26¼	26
NP	43½	37¼	Fairbanks, Morse & Co., com	A	39½	40	39½
100	118	106	Fairbanks, Morse & Co., pfd	A	108	112	108
NP	88	60	Johns-Manville Corp	B	84	88½	84
100	161	100	Jones & Laughlin, com	F	155	.....	155½
100	120¼	117	Jones & Laughlin, pfd	F	120¼	120½	120¼
10	21	16	Michigan Copper & Brass Co	D	19	20	20
100	115¼	95	National Lead Co., com	A	112½	113	112½
100	109¼	104⅞	National Lead Co., pfd	A	109¼	110	109¼
100	106	102	Ohio Brass Co., pfd	H	81	82	81
NP	101	83	Ohio Brass Co., "B"	H	105½	106	105½
25	.....	.....	Pierce, B. & P. Mfg. Corp., com	U	24	27	25
100	101	98	Pierce, B. & P. Mfg. Corp., pfd	U	98	100	98
NP	27¾	21½	Richmond Radiator Co., com	B	27¾	28¼	27¾
NP	56	41½	Richmond Radiator Co., pfd	B	43¼	44	43¼
100	65	53	Scovill Mfg. Co	U	55	57	55
25	96	78	Standard San. Mfg. Co., com	F	90	95	90
100	118¼	110	Standard San. Mfg. Co., pfd	F	115	.....	115½
100	.....	.....	Trenton Potteries Co., com	U	45	55	45
100	.....	.....	Trenton Potteries Co., pfd	U	95	105	95
100	244½	202	U. S. Cast Iron P. & F. Co., com	A	223	223½	223
100	116	112	U. S. Cast Iron P. & F. Co., pfd	A	115½	116	115½
NP	42	38	U. S. Radiator Corp., com	D	38	38½	38
100	112	95⅜	U. S. Radiator Corp., pfd	D	95¾	96¼	95¾
100	.....	65¼	U. S. Rubber Co., com	A	47¼	47½	47¼
100	111⅜	85⅝	U. S. Rubber Co., pfd	A	94	95	94
100	137⅝	111⅜	U. S. Steel Corp., com	A	135⅝	136	135¾
100	136	129	U. S. Steel Corp., pfd	A	136⅛	136⅞	136⅛
NP	27	17½	Walworth Company	A	18	18¾	18
NP	17	7	Williams Oil-O-Matic Htg. Corp	C	9½	10	9½
NP	7	4	Wolff Mfg. Corp	C	4	5	4
NP	97¼	60¼	Youngstown Sheet & Tube Co	A	86⅞	87¼	86⅞

*Where listed—

A—New York Stock Exchange
B—New York Curb Exchange
C—Chicago Stock Exchange
D—Detroit Stock Exchange
E—Boston Stock Exchange
F—Pittsburgh Stock Exchange
G—St. Louis Stock Exchange
H—Cleveland Stock Exchange
I—Cincinnati Stock Exchange
U—Unlisted Stocks

FIRST VISITOR AT PRESENT EXECUTIVE HEADQUARTERS, IN ALBANY, N. Y.

The first visitor at the National Executive Headquarters now located at 6 South Pearl street, Albany, N. Y., was the chairman of the National Scholarship Committee, Past National President Frank J. Fee of New York City. After a minute inspection of the spacious offices and the business-like air attendant therein, he congratulated National President Thomas F. Nolan, National Secretary Frank F. Schimpf, and the attaches of the offices for the wonderful work accomplished in such a short space of time.

DELAWARE VALLEY TRADE GOLFERS PLAY AT TRENTON

John Moore, with a 92 gross, captured major honors at the July meet of the Delaware Valley Trade Golf Association, held at the Trenton Country Club, on Thursday, July 21. Mr. Moore has 25 handicap, giving him a net one stroke below that of Robert Savill, who turned in a net 68 after the 18 strokes he is allowed had been deducted.

Members always have a good time at Trenton, where the potters are the hosts, and a large crowd turned out for the tourney, with a good proportion of the scores breaking the hundred mark. However, a fair share of the trade golfers failed to turn in their cards, leaving their totals to the active imaginations of their associates.

In the afternoon, a best ball contest had been arranged by Captain Fred Allen, A. Tomlinson and John Bitzer furnishing the sensation. The two had a combined handicap of 25 and took full advantage of it, their net being 64. W. Hanson, Philip Faherty, Claude Owen, Fred Allen and Harold Deacon, Jr., divided the balance of the honors for the afternoon round. Chris Weber followed Mr. Moore and Mr. Savill in the morning's scoring, taking third prize.

The way they played:

Morning Round

(Eighteen Holes Medal Play)

Player	Gross	Hdp.	Net	Player	Gross	Hdp.	Net
Robert Savill	86	18	68	C. Owen	99	25	74
U. G. Cunningham	No card			W. Hanson	94	20	74
Frank Newton	No card			H. J. Kleinman	91	15	76
Chris Weber	94	20	74	F. C. Allen	97	18	79
R. Knight	105	30	75	R. Kleinman	96	18	78
Dr. Findison (guest)	104	..	..	John Bitzer	No card		
				A. Tomlinson	No card		
W. B. Tomlinson	106	30	76	C. P. Hackett	No card		
E. W. Rudd (guest)	118	..	..	Harold Maddock	No card		
E. H. Giles	107	25	82	W. J. Hepburn (guest)	No card		
P. Faherty	102	23	79				
John Moore	92	25	67	H. C. Moore (guest)	No card		

Afternoon Round

(Best Ball Foursome)

Player	Gross	Hdp.	Net	Player	Gross	Hdp.	Net
Berryman & Atkin	80	9	71	Maddock	No card		
Bridgman & Robinson (guests)	85	..	..	A. Tomlinson & Bitzer	89	25	64
Faherty & Owen	92	23	69	Brewton & Heatherton	108	30	78
J. Moore & Giles	No card						
Savill & Weber	91	18	73	A. M. Maddock & Hackett	92	18	74
Dr. Findison & Knight	95	20	75	Lang (alone)	108	30	78
H. J. Kleinman & Hanson	81	15	66	Allen & Deacon	80	9	71
Bolsinger & H.				Burns & R. Kleinman	91	18	73

UTAH ASSOCIATION TO HOLD QUARTERLY CONVENTION

Utah masters are now looking forward to what will no only be a convention but also a gala event. On August 18 between fifty and seventy-five masters and their wives will leave Salt Lake City, Provo, and adjoining towns and journey, probably caravan fashion, to Cedar City, which is a day's drive to the south.

Two business sessions will be held August 19, according to William A. Bywater, president of the association. Among the business to be considered are the results of the membership campaign and a report of the National convention at Minneapolis, which was attended by three members of the Utah state association, namely, Mr. Bywater, Secretary O. S. Walsh and A. E. Buckley, a member of the board of governors.

A new member will be chosen to fill the vacancy on the board of governors caused by the death of Parley Burt of Springville, who was serving his second term. On August 20 it is planned to make a trip to Bryce Canyon, which is recognized as one of the most beautiful scenic spots in the west and which is only a short distance from Cedar City. The members will return the next day. The decision to hold the convention at Cedar City was reached as the result of an invitation by the Cedar City Chamber of Commerce.

BLACK WINS CARR TROPHY CUP AT LLANERICH

Llanerich Country Club, Llanerich, Pa., was the scene of the July meet of the Heating and Ventilating Golf Association of Philadelphia, Wednesday, July 20. With George and William Hughes acting as hosts for the day, ideal weather conditions brought out a good crowd for the day's play, calling for medal play in the morning and best ball in the afternoon round.

Some exceptionally good scores were turned in. E. N. Black, 3rd, came in with a net 72 to win his first leg on the H. J. Carr Trophy Cup and first prize in Class B. Warren Webster, Jr., in class A shot a good 75 to win four balls for first prize in this division. Thomas Cooper won second prize and three balls with a net 76. C. W. Wardell and C. J. Williams each received two balls for third and fourth prizes with a 79 and 80 respectively. Walter Wild with a 79 took fifth honors and received one ball. In class B George Eagan won second prize and three balls with a 73.

The third and fourth prizes went to H. J. Carr and George Hughes with 76 and 77 respectively. Each received two balls. Fifth prize and one ball went to Lee Nussbaum with an 83.

The afternoon round found Jackson and Kitson of "hole-in-one" fame in first place with a 69. Four balls were their reward. Luke and Robelen each received three balls for second prize with a 71. Third prize and two balls went to Hurley and Captain Culbert with a 71. Hemphill and Bolsinger each received two balls for fourth prize with 71. George Kappel got one ball for fifth prize with an 81.

President Hemphill presided over the dinner and short business session in the evening. The next meet will be held at the Springhaven Country Club, August 17. The scores for the day were as follows:

Morning Round

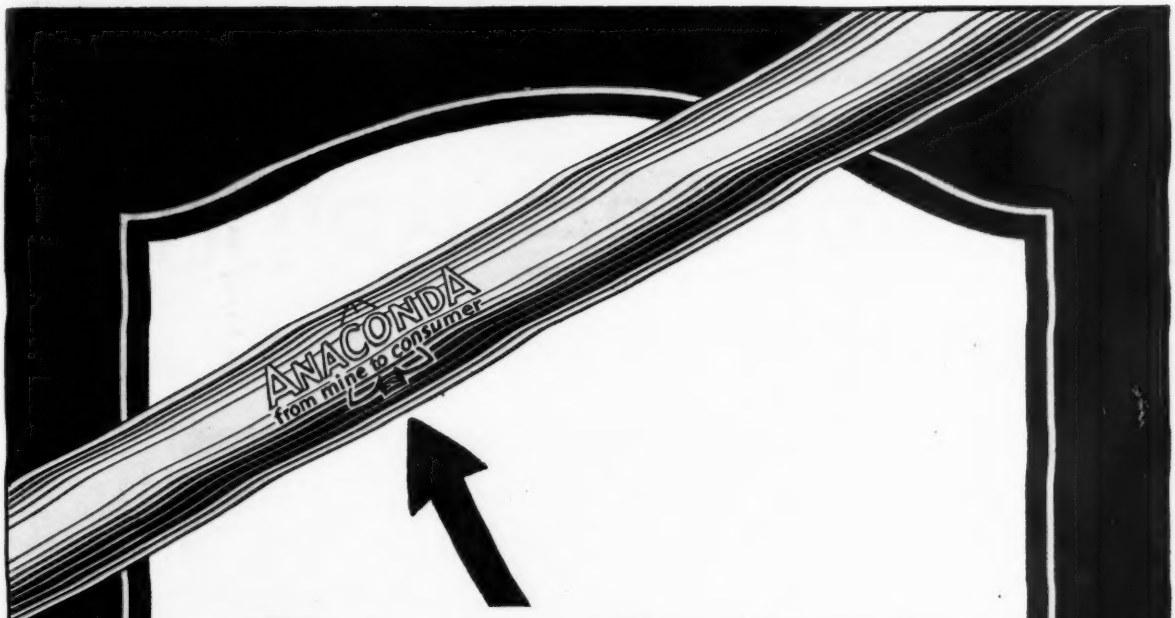
Name	Gross	Hdp.	Net	Name	Gross	Hdp.	Net
Chas. Williams	93	13	80	Walter Wild	104	15	89
Geo. Eagan	103	30	73	J. Hemphill	90	12	78
W. Webster, Jr.	93	18	75	Ray Bolsinger	97	10	87
Geo. Kappel	101	25	76	Merrill Blankin	99	10	89
J. Luke	92	11	81	B. Pennypacker	113	25	88
R. Parnell	91	..	..	Lee Nusbaum	104	21	83
T. Cooper	82	6	76	Wm. Hughes	110	30	80
W. Robelen	102	19	83	George Hughes	107	30	77
E. N. Black 3rd	97	25	72	J. Hurley	101	25	76
J. Carr	100	24	76	Wm. Jackson	119	35	84
C. F. Thompson	102	21	81	Geo. Kitson	109	30	79
C. W. Wardell	92	13	79	W. P. Culbert	..	..	..

Afternoon—Best Ball

Name	Gross	Hdp.	Net	Name	Gross	Hdp.	Net
Black & Kauffman	101	25	76	Thompson & Wardell	87	13	74
Hemphill & Bolsinger	81	10	71	Cooper & Young	89	6	83
William & Blankin	84	10	74	Hughes & Hughes	113	30	83
Hurley & Culbert	89	18	71	Culbert & Wild	88	7	81
Jackson & Kitson	99	30	69	Nusbaum & Jacobsen	90	18	72
Luke & Robelen	82	11	71				
Webster & Kappel	99	18	81				

M. T. G. A. TO MEET AT NUTLEY, N. J.

The monthly tournament of the Metropolitan Trade Golf Association will be held at the Yountakah Country Club, Nutley, N. J., on Tuesday, August 23, according to announcement by Secretary F. W. Broatch. L. Rothwell, of the American Pin Co., is the member-host.



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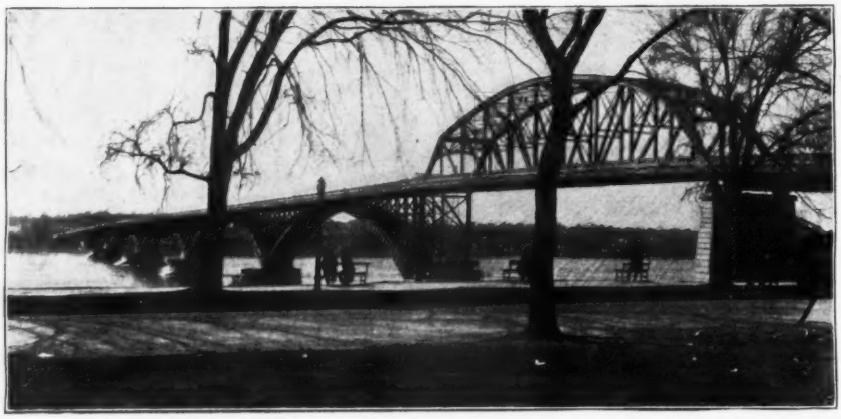
GENERAL OFFICES: WATERBURY, CONNECTICUT
Offices and Agencies in Principal Cities
Canadian Mill: ANACONDA AMERICAN BRASS LIMITED
New Toronto, Ontario

ANACONDA BRASS PIPE

AT THE PEACE BRIDGE



ACROSS NIAGARA RIVER AT BUFFALO

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Landon Radiators are Installed in the American Customs House

And they are being installed in small and large buildings of every type.

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THE LANDON RADIATOR CO. INC.
NORTH TONAWANDA N.Y.

A Plumbing Conference

(Continued from Page 39)

it take to raise sewage 15 ft.? Of course I am familiar with ½ lb. pressure to the foot, and the theoretical pressure of 30 lb. to raise sewage 15 ft., but what would an actual job call for?

By the first question we presume that what is meant is how high the sewage can be pumped, and that it is not being considered as a suction lift problem, for a centrifugal bilge pump is usually of the submerged type without a suction lift. A bilge pump is generally of the centrifugal type, and will pump sewage as high as a pump with

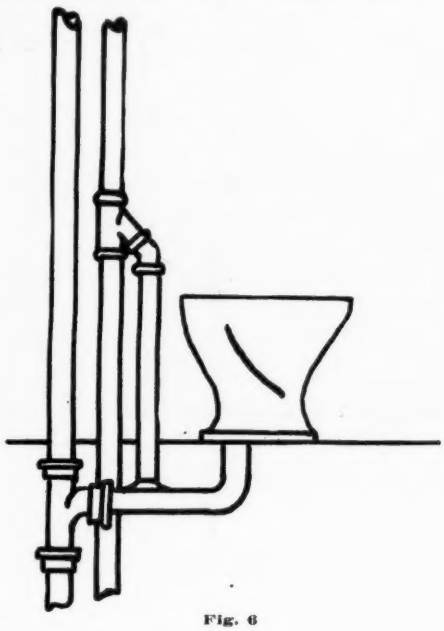

Fig. 6

clear water. There are installations that pump more than 100 ft., but it will be found, as a rule, that the head is very low, 20 to 30 ft., as the pump is mostly used in elevating from a level below the gravity sewer into it.

Answering the second question, the increase in size of the discharge pipe is entirely optional.

There is no objection to connecting a vent from the centrifugal ejector to the ordinary house vent, as there is no effect similar to that with a pneumatic ejector. In the use of the latter the vent should be separate from the house vent system. There would be no effect on trap seals, as there is no rapid discharge and intake of air.

We consider the use of a Y branch to be the best method of connecting the discharge from the sewage ejector into the gravity sewer.

Answering the last question,—in practice one pound of pressure will raise sewage approximately two feet. The higher the pressure, the faster the sewage will discharge.

Quite a number of weeks ago, Wm. H. Herrmann, of Eatontown, N. J., wrote to us, expressing appreciation for our article on venting, which appeared in the March 27th issue, and making the following inquiry:

"A part of Mr. Starbuck's article is not plain to me, i. e., that part of the government report contained on page 24, relating to the connection of the vent pipe and waste pipe below the hydraulic grade,—below a line which connects the high water line of fixtures, and point where the waste pipe enters the stack. Now, what is the hydraulic grade? Possibly some others like myself, reading this article might like to know."

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In the government report on plumbing, which is alluded to, is the following, which will help to answer this inquiry:

"If waste pipes are so arranged that the waste water may rise into the vent pipe at times of discharge, the latter is very likely to become clogged. If the connection

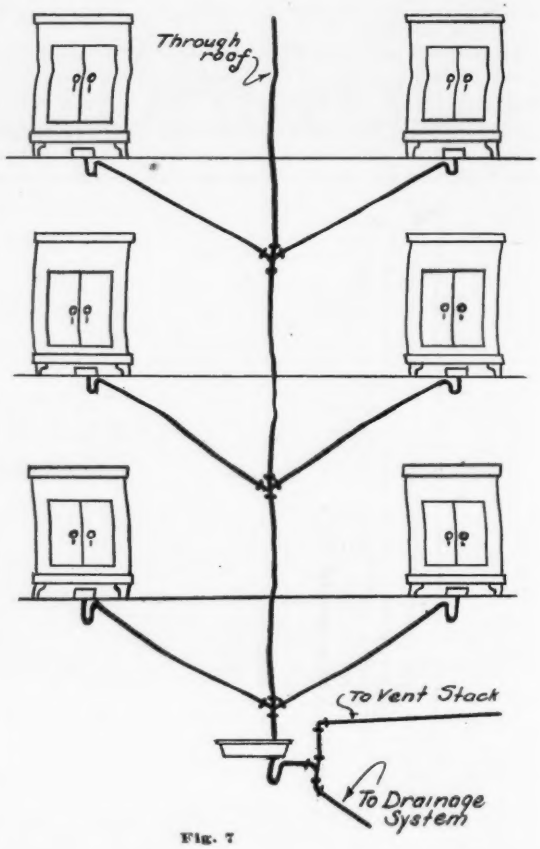


Fig. 7

of the vent pipe and waste pipe lies below the hydraulic grade, that is, below a line which connects the high-water line of the fixture and the point where the waste pipe enters the stack, water is likely to rise into the vent pipe. The crown vent is an example of this condition, and the frequent clogging of this vent has caused this arrangement to be looked upon with disfavor and even to be prohibited by regulation, but almost any vent which rises from a horizontal branch, may act in the same way if the discharge fills the waste pipe. If the vent forms a continuation of the vertical leg of the waste pipe, and if this connection is above the hydraulic grade, there will be no danger of the vent becoming clogged. This is a reason for limiting the length of all horizontal waste pipes, whether vented or not."

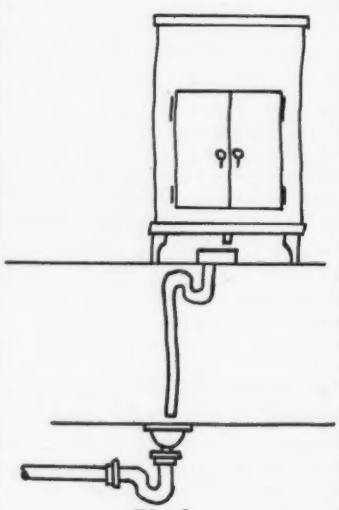
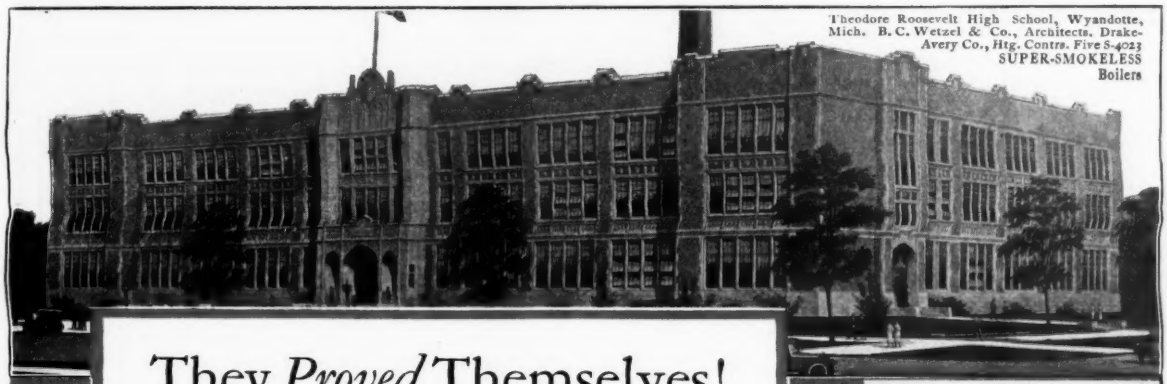


Fig. 8

The hydraulic grade is shown in Fig. 11 by



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And by burning soft coal *smokelessly*, thus keeping both the school and the neighborhood clean.

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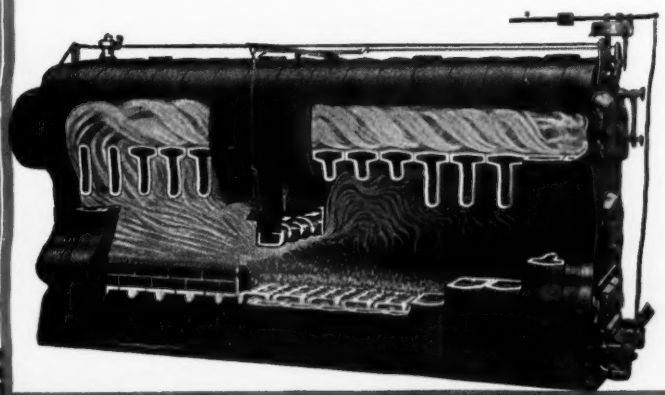

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On the performance of these boilers, we have installed two of the same type and number in the first addition of the Woodruff School. This latter building when complete will have a capacity of fourteen hundred grade pupils, and will have four such boilers installed.

We shall be glad to recommend these boilers to anyone interested in a boiler which will give high efficiency with low maintenance cost.

Yours very truly,

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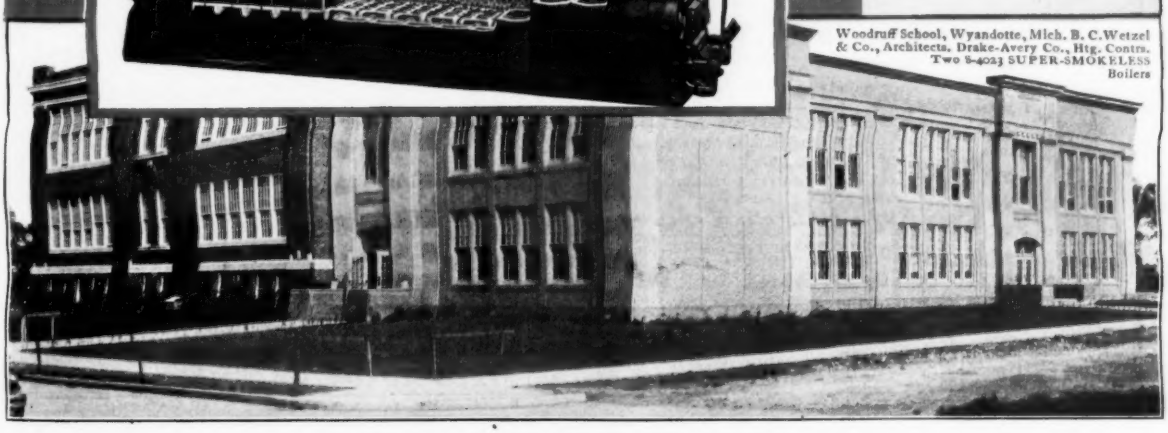
F. W. Frostic

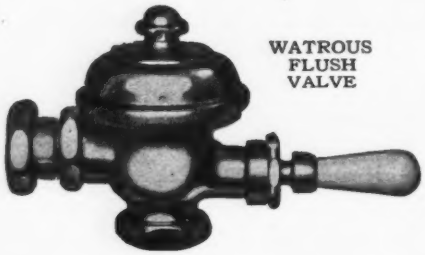


Woodruff School, Wyandotte, Mich. B. C. Wetzel & Co., Architects. Drake-Avery Co., Htg. Contrs. Two S-4023 SUPER-SMOKELESS Boilers

Watrous

Flush Valves

ASSURE THE EXACT LENGTH OF FLUSH *FOR EVERY MAKE OF CLOSET BOWL*



WATROUS FLUSH VALVE

REGARDLESS of the make of closet bowl used, the Watrous flush valve delivers the exact amount of water required *by that bowl* for a thorough flush—*and no more.*

It is the only design that makes proper provision for adapting the quantity of water consumed to the needs of the bowl.

The result is maximum flushing efficiency and economy in water consumption.

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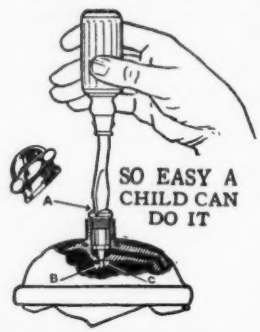
A simple turn of a screw (A) adjusts the valve to the needs of the bowl. It is not necessary to turn off the water, or remove any of the working parts of the valve to make this adjustment. The adjustment, once made, remains permanent.



Self Cleansing Mechanism

Every time the valve is flushed, the plunger (B) is raised off its seat (C), leaving an opening through which grains of sand, etc., can be washed out of the port. No type of flush valve, without this safeguard, is immune from obstruction.

No Regulation Required

The feature just described—control of the quantity of water supplied to the closet bowl—should not be confused with regulation to conform with varying degrees of water pressure. The Watrous valve requires no regulation—from highest pressure down to as low as 5 lbs.

Having a 25% larger diaphragm-area in the control chamber, the Watrous valve functions reliably under low pressure conditions where other valves often fail.

It has a larger water-way per second of opening, and therefore delivers to the closet bowl a sudden, extra-large volume of water which assures prompt flushing action.

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the line indicated by the letters X and Y. This line connects the central point of the high-water level of the fixture, with the point at which the waste enters the stack. It has been demonstrated that when the connection of the vent into the waste lies below this line, waste will rise into the vent connection, and eventually

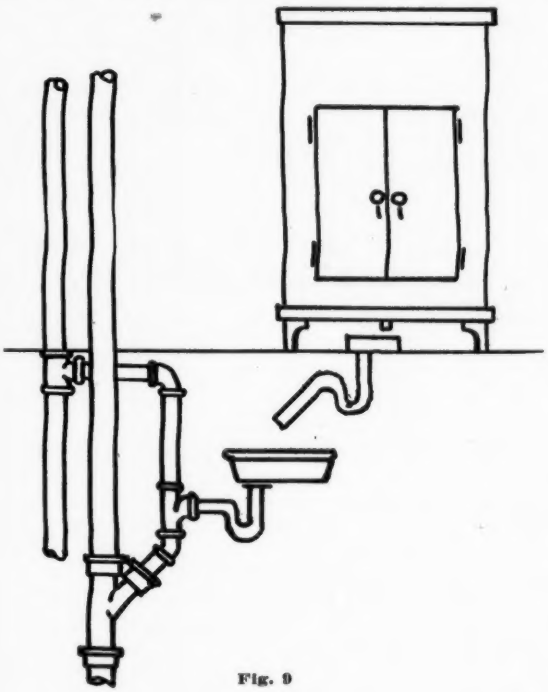

Fig. 9

clog it. This is true whether the vent connection is taken off a horizontal or a vertical waste.

Many, many times in the discussion of the Schoolmaster drawings, we have found just such vent connections as shown in Fig. 11, and have invariably considered them poor practice.

The crown vent is shown in Fig. 16, and, of course, it is somewhat different than the vent in Fig. 11. Both types of vent come below the hydraulic grade, however, and that is the test that throws them out. We might add that the vent shown in Fig. 11 we have found more often applied to the bathtub than to any other fixture.

The government report goes considerably further into the subject, as follows:

"In connection with the employment of individual or group vents as a protection against siphonage and pressure effects, or as a means of insuring air circulation, it is of extreme importance that the position and manner of making the vent connection receive special attention and be safeguarded by regulations. The experiments on fouling conducted at the Bureau of Standards, and numerous instances cited for service installations, indicate that there is

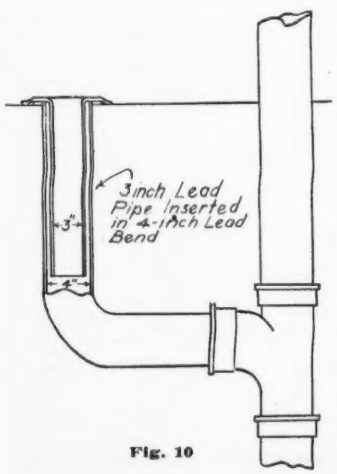

Fig. 10

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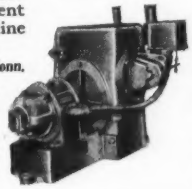
Jennings Sewage Ejectors for raising sewage from low levels come in sizes up to and including 300 g. p. m. capacity against heads up to 50 ft.

Motor-driven Jennings Condensation Pump



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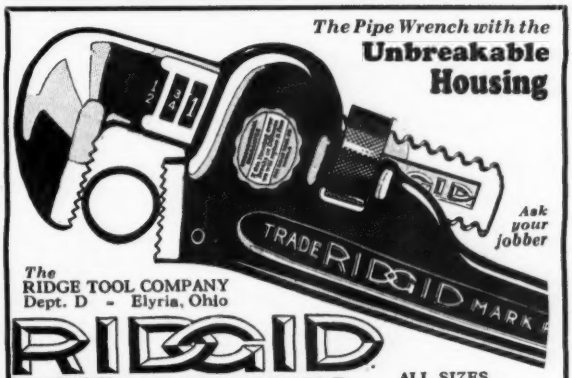

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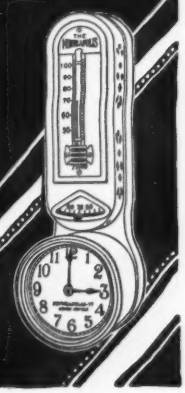

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a strong liability of a vent line becoming completely closed near its junction with the waste line when conditions for fouling are favorable. It is evident that a vent poorly installed has not met the condition and that one that has become completely stopped in service is as bad as if no vent had been installed. The method of crown venting has been generally prohibited because of liability of closure by fouling. Some forms of continuous waste and vent may give rise to conditions which are quite as bad as crown venting.

"The 'continuous waste and vent' has been favored by the plumbing committee. As 'continuous waste and vent'

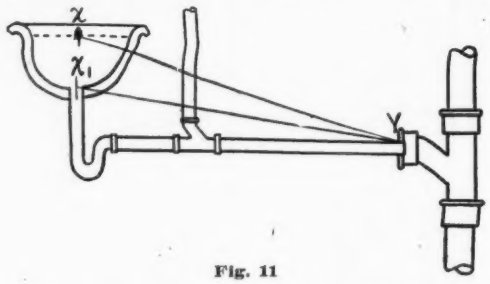

Fig. 11

is defined, it would permit the vent being taken off the top of a horizontal waste or the continuation of a horizontal waste as a vent. For illustration of three distinct effects, all of which fall within the definition of 'continuous waste and vent,' refer to Figs. 11, 12 and 13. Fig. 11 represents a nominally horizontal waste vented from the top of a T-Y in the horizontal waste line in which the waste and vent are in the same vertical plane. Assuming the same cross sections of trap and waste throughout, X-Y represents the approximate hydraulic gradient when the waste line is flowing full under the head in the fixture. Evidently in an arrangement of this kind there will be periodic back flow into the vent, and strong liability to stoppage in the vent. Fig. 12 represents a waste, with a corresponding horizontal distance between the fixture and stack, in which there is a vertical section, *c, following the point of venting. Here the vent connec*tion lies above the hydraulic gradient, X-Y, therefore the vent line is protected against back flow and consequent stoppage. When venting is necessary to protect trap seals, the type of venting represented in Fig. 12 is believed to be the best possible; that is, a 'continuous waste and vent' in which the vent is a continuation of a vertical section of the waste. The restriction necessary to insure protection against back flow into the vent or vent connec-

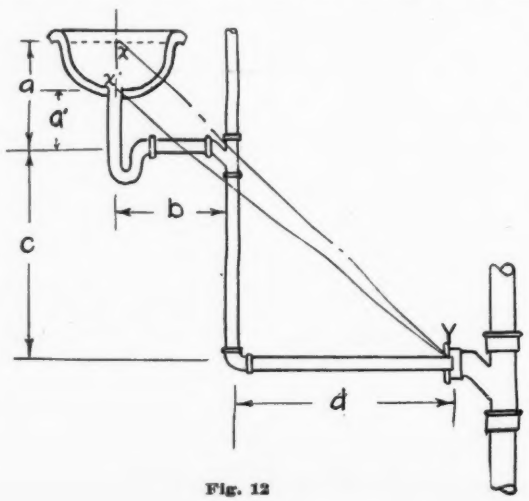

Fig. 12

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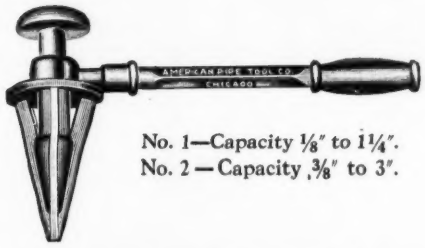

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tion would be that $\frac{c}{d}$ is equal to or greater than $\frac{a}{b}$. Referring again to Fig. 12, a would represent the vertical distance from the level of the fixture overflow to the level of the outlet of the first horizontal section, b the horizontal distance from the fixture outlet to the first vertical section or to the vent connection, c the length of the vertical section from the vent connection to the level of the outlet of the second horizontal section, and d the length of the

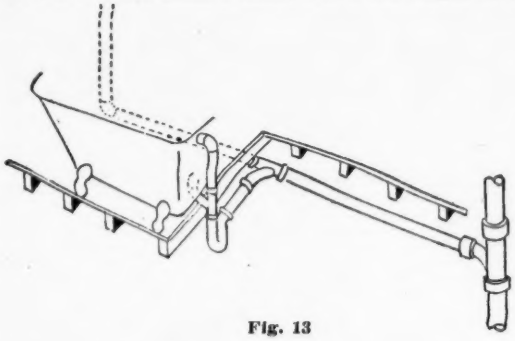

Fig. 13

second horizontal section. For small fixtures, a washbasin or kitchen sink, a might be measured from the top of the fixture outlet with perfect safety, since by the time the waste has become filled by the discharge the fixture will have practically emptied. Call this new distance a^1, then the new hydraulic gradient is X¹Y. It will be observed that the direction at which b leads into c makes no difference. To apply concretely to a practical case, suppose a washbasin with trap set close to the fixture and the waste from the trap leading directly into the wall, thence vertically to the floor, and thence horizontally through the floor to the stack. Suppose $a^1=6$ inches measured from the basin outlet, $b=12$ inches, and $c=17$ inches, then to hold the relation $\frac{c}{d}$ is equal to or greater than $\frac{a}{b}$, d can not

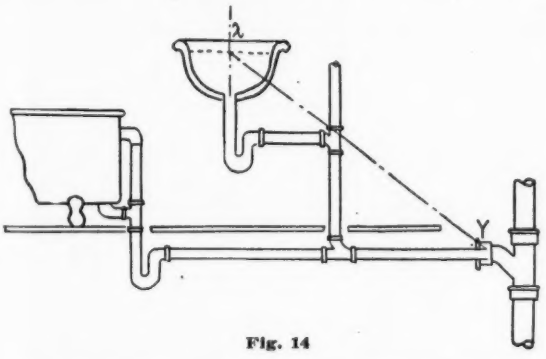

Fig. 14

exceed 34 inches. It is recognized that in the case of bathtubs and other fixtures which set low on the floor, it is impractical to attempt to hold any relation between verticals and horizontals, such as suggested when a long waste leads through the floor on which the fixture is set. Figs. 11 and 13 show that in this case the vent connection is always below the hydraulic gradient for a full fixture and a full waste line. Figs. 14 and 15 represent types of 'group venting' in which it would be possible to hold the relation $\frac{c}{d}=\frac{a}{b}$ so far as the dry vent is concerned. The wet vent portion would be kept open by the discharge of the fixture that it serves as a waste. For this reason

"They Keep a-Running"

6 Horse Power Century Type RS Repulsion-start Induction Single-phase Motors

In Rural Service "They Keep a-Running"

Because "They Keep a-Running" Century Type RS Repulsion-start Induction Single-phase Motors are particularly fitted for rural and farm service.

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LEADING CORPORATIONS—distinguished for the certainty with which they buy the most modern equipment and secure the most satisfactory service at lowest final cost—are installing Heggie-Simplex Electric Welded Steel heating boilers in steadily increasing numbers.

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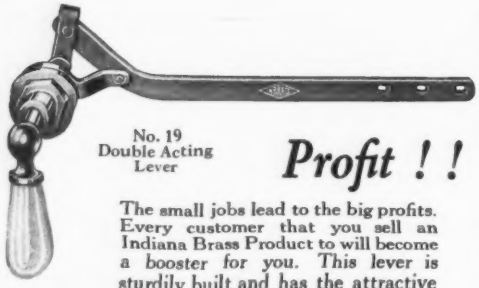
JOLIET, ILLINOIS
Representatives in Principal Cities



No. 19
Double Acting
Lever

Profit ! !

The small jobs lead to the big profits. Every customer that you sell an Indiana Brass Product to will become a booster for you. This lever is sturdily built and has the attractive exposed china handle.

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Ask your jobber.

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Enduring Quality

Built-in Bath and Shower Fixtures
Staple Plumbing Brass Goods
Tubular Brass Goods
Water Works Brass Goods

United-Oberndorf Corporation
Cleveland, Ohio

these types of group venting are believed to be better than individual venting when the one vent fully protects the traps of the two fixtures.

"Recommendations.—From a consideration of the subject of limitation of length of small waste branches from all standpoints, facility of drainage, self-scouring of waste lines, circulation of air, self-siphonage, stoppage of vents, some of which are mutually conflicting in their requirements, the following is suggested as a solution:

"1. That the developed length of an unvented horizontal waste be limited to 6 feet.

"2. That the developed length of an unvented horizontal waste from a washbasin or other oval-bottomed fixture be limited to 4 feet for traps with nominal 2-inch seals and 6 feet for nominal 3-inch, or more, seals.

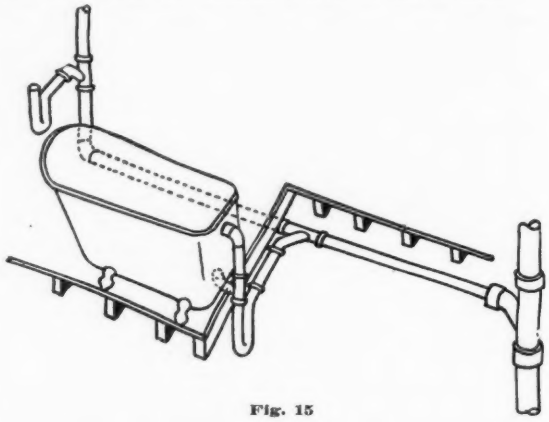


Fig. 15

"3. That a horizontal section of the vented portion of a waste be limited to 6 feet, except when the vent is the continuation of a vertical portion of the waste, in which case it may be extended to $d = \frac{b}{a} - c$ (see Fig. 12), section b being in general the length necessary to make the connection from the fixture to the vertical section, c, in the partition or wall, limited always by the condition pertaining to an unvented horizontal waste.

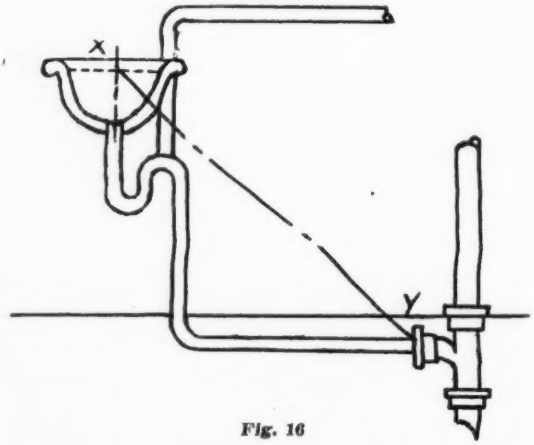
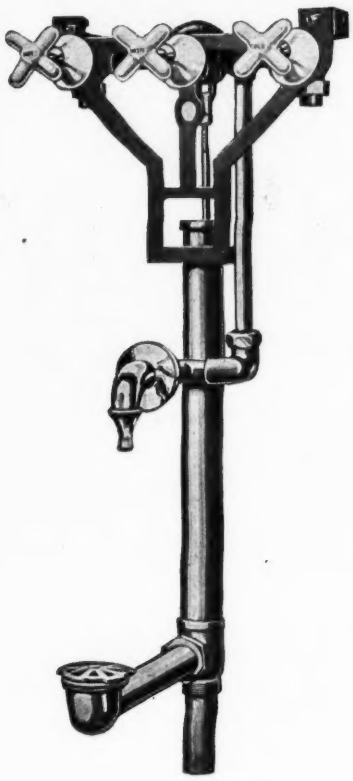


Fig. 16

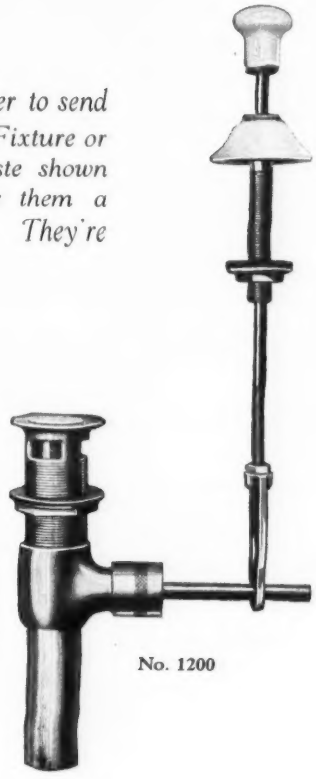
"4. That whenever practical a vent be the continuation of a vertical section of the waste."

We do not know of any more clearly stated description of the liability of stoppage of vent openings than the foregoing. Possibly it may not seem so clear in casually reading it through, but if one will take the trouble to study it, it should be very clear. If further explanation

American



Ask your jobber to send you the Bath Fixture or Pop-Up Waste shown here and give them a test in service. They're guaranteed.



No. 1200

Unless you've used American fixtures before, you've never seen anything like them for utter simplicity both in construction and for installation.

And until you use them, you'll never know the excellent service they give, without trouble of any kind, for years. You might ask plumbers who are familiar with American quality but the best way is to try them for yourself.

AMERICAN SANITARY MFG. CO., ABINGDON, ILL.

WHEN·PHILOSOPHERS·MADE SCREW·THREADS

In the fourth century, screw threads were made by wrapping a triangular brass templet around the cylinder, marking the lines and cutting out the metal with a chisel.

How different today! A few turns of a GENUINE ARMSTRONG Pipe Threading Tool produces threads that are clean-cut and accurate.

Write Your Jobber for Prices on Up-to-Date Threading Tools.

The second of a series of advertisements on the history of screw threads.

Think How Lucky—
is the modern engineer who needs only to buy Genuine Armstrong Pipe Tools to simplify his pipe threading work.

The Armstrong Manufacturing Co.

Our Only Addresses:

Main Office and Factory: Bridgeport, Conn.

New York Office: 181 Lafayette St.

is desired, by members of the class, we shall be glad to have request made for it.

VENTING FLOOR DRAINS

ANOTHER inquiry of long standing is from C. F. Baker, Crete, Nebr., who submits two illustrations showing different methods of venting floor drains, and asking us to decide which is the better. We regret to say that we do not just understand the drawings, but believe we can give him information concerning the subject that will be helpful.

Under normal conditions, we do not believe that it is necessary to vent a floor drain, and if it is not necessary, why do it? The plumbing system at best is too complicated,—why make it more so?

The government report on plumbing, the so-called "Hoover" report, contains an excellent reference to this subject, and we give it in full, as follows:

"There seems to be no reason why a floor drain might not be connected into a soil or waste stack when conditions permit, subject to the same requirements in venting, etc., as a fixture connecting into the stack at the same point. If the house drain is sufficient in size for the system, and located high enough to be free from backwater effects, a floor drain might connect directly to a nominally horizontal house drain at a point 5 feet or more from the base of the stack on the sewer side, without danger from aspiration or back pressure, and hence, need not be separately vented unless its form is such as to induce self-siphonage or for other good reasons. The velocity of flow attained in a house drain is insufficient to produce aspiration, and the head is not great enough at such a point to produce sufficient back pressure to endanger the trap seal. In all places where there is any danger of backwater or overcharged sewers the floor drain, if installed, should be fitted with a suitable backwater valve."

Drinking Water Temperature

(Continued from Page 29)

is quite obvious that this is a more direct method as the heat from the water is transferred directly to the cooling coil without the intermediate bath. However, there are other angles which will be discussed presently.

Drinking Water Coil in Refrigerant Gas Method

A third method is similar to the second, but instead of immersing the cooling coil in the drinking water, the method is to immerse the drinking water in the refrigerant gas (see Figs. 5 and 6). The result is quite startling. The warm water inside of the coil, which is immersed in liquid sulphur dioxide (SO_2), causes an extremely rapid evaporation as this liquid boils at 140 deg. F., making the heat transfer very rapid—in fact, it is almost instantaneous. This type of cooler is very efficient and will do a large amount of work in a very small space, but of course the compressor condenser and motor must be proportionately large to accomplish the job.

A point to be considered in this method of cooling is the danger of freezing the water coil, which in turn will stick the compressor. This must be overcome by a delicate control, which will operate at a very slight change in temperature. Such a control is furnished with coolers of this type and has proved satisfactory. But if the control is improperly set or ceases to function for any reason, the cooler will shut down automatically. This is not so bad provided the water coil does not fracture, but if this happens the result is sometimes serious. The (SO_2) sulphur dioxide has an affinity for (H_2O) water and if any of the SO_2 gets into the water coil, we immediately

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The Hutchison Modulating Valve answers the purpose wherever there is need of a low pressure modulating valve. It is made of the finest steam metal heavily nickel plated. This valve is adjustable to any size radiator and will give the maximum of efficient service.

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Heavy Duty
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UNIONS

The Ravena cast iron fittings are guaranteed to be of highest quality raw materials and workmanship.

They will prove of unusual strength and durability on all installations.

Write for Ravena catalogs.

Ravena Iron
Company
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have (H_2SO_3) sulphurous acid. No one wants a mouthful of sulphurous acid, and little imagination is necessary to visualize the results if this acid should gain access to the water piping in a building. This should be guarded against where such a cooler is placed in a circulating system. One would also need to consider the possible action on the piping system.

To get H_2SO_3 with the second type (Fig. 4) of cooler mentioned, it would be necessary to have a leaking cooling coil or connections. This type of cooler is generally used *with gravity. The coil is immersed* in a vessel holding the drinking water, which is kept at a constant level by means of a ball cock. Contamination of the drinking water should be prevented. When repairs are made, the lid is lifted up and fingers may come into contact with the water. The lid should be tight to exclude all dust and to prevent a film of dust from collecting upon the water.

Many health authorities forbid immersing any foreign substance in drinking water used for public consumption, especially where there may be a liability of contamination by any chemical. Even ice is excluded from direct contact with drinking water used by the public, as it should be.

The first method, or indirect method, requires a somewhat larger and more expensive cooler, but is less likely to contaminate the water supply.

In this method, all water is contained in regular piping connected with the city supply, while inside the cooler the water coil is of copper, tinned inside and outside (see Fig. *3). The water coil and the cooling coil* are both immersed in a bath of plain water. If the water coil leaks, it passes into the bath and out through the overflow to the sewer. If the cooling coil leaks SO_2, it will form H_2SO_3 in the bath only, which will cause the cooler to overflow, but can not gain access to the drinking water. Brine should not be used as a bath, because of the danger of freezing the water *coil if temperatures that are too low are maintained.*

All these details and many others are taken into consideration by the engineers representing large steel mills and many other industries when selecting mechanical water coolers for their plants.

The type shown in Fig. 7 lends itself to multiple story buildings where it is not feasible to place a separate cooler in each location. **(To be Continued)**

Letters to the Editor

Dear Editor of "Domestic Engineering":—

Through your valuable paper I would like to unburden a few thoughts on a very practical subject.

Is a man worthy of his hire?

I wonder if you think this saying is true in all cases. No, it cannot be, regardless of how good it sounds or how long it has been used.

There is another very popular phrase before us today that has been conducive of much good,—"The plumber protects the health of the nation."

What does this bring to the mind of the readers? The public thinks the plumber well paid, but this is not true. Compare the service with the cost and when viewed by an impartial committee it must be conceded that the plumber *is not properly paid.*

But it is not the plumber of whom I wish to speak particularly at this time. It is the man who protects both the plumber and the public—the man who guarantees protection against the many evils of poor plumbing—the man who sees to it that the public gets what it pays for, safe *plumbing,—the man who is really the true protector of* the health of the nation. I have reference to the much maligned, misunderstood person known to us as the plumbing inspector.

If You Were to *Build* the Heating Plants You *Install*

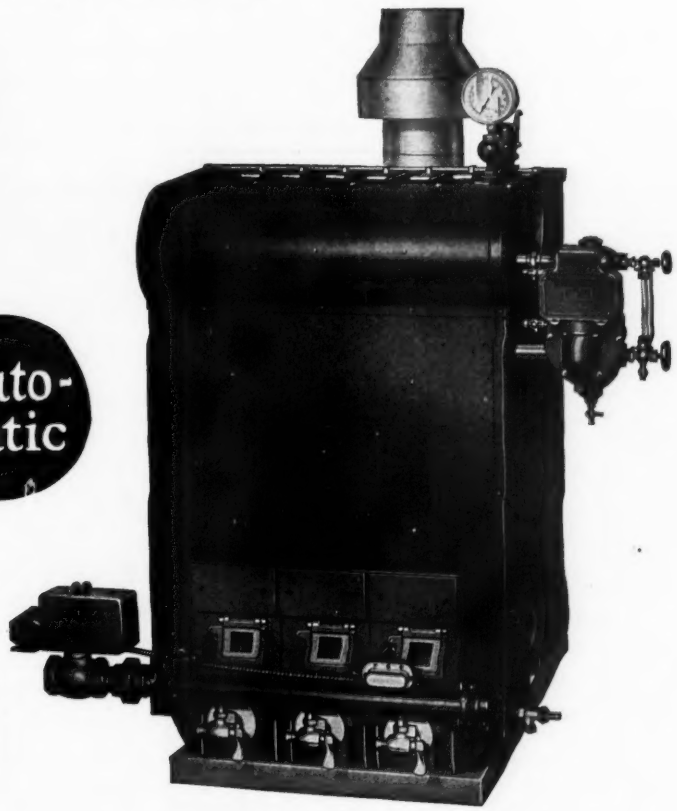
The first thing you would do would be to make the plant tamper-proof—fix it so that the user couldn't get it out of order. That would save you a lot of service calls after the plant was put into operation.

The next thing you would do would be to make the equipment entirely automatic—fix it so it would be controlled by positive mechanical regulating devices. That would save you more grief and please the customer greatly!

Gas-Era Gas-Fired Boilers *are* tamper-proof and they *are* entirely automatic in every detail of operation. The user lights the pilots in the Fall, turns them out in the Spring—enjoys uniform, automatically supplied heat all Winter. And you, as a dealer, enjoy a clean profit that isn't eaten up by "after-servicing."

Tamper-proof

Auto-matic



Designed for residential and industrial use, with capacities in Steam from 400 to 12,000 square feet, and in Water from 650 to 19,500 square feet of radiation.

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L. J. MUELLER FURNACE CO.
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RICHARDSON & BOYNTON CO.
260 - FIFTH AVENUE ~ NEW YORK CITY

Plumbing Inspector Not Adequately Paid

After all is said, is he not truly the real man who says that you may live in safety in your home or office?

Now the point is that to my notion he is not adequately rewarded for this service. I am not a plumbing inspector; I have never been a plumbing inspector and never expect to be one, but I am a plumber and know whereof I speak. Neither does any plumbing inspector know that I am writing this defense, for that is really what it amounts to.

The public in general, I mean the taxpayer whose money is used to pay the salary of the inspector, does not give the matter sufficient thought. Councilmen and efficiency experts are paid by the taxpayer to conduct the workings of their communities. In their efforts to render service to the people, they should know the ratings of the men in the various departments that come under them.

I am of the honest opinion that sufficient consideration is not given to the plumbing inspector. For to my mind there is no department connected with any city upon which so much depends as the division of plumbing and inspection.

Let the reader, regardless of whether he is a plumber or not, review in his mind the city organization with which he is identified and then answer if the protection of health is not the paramount issue. If the answer is honest it must be "yes," for health is the greatest boon to man.

The Hoover subcommittee on plumbing said: "Plumbing is essentially a health measure." That was several years ago and no one has denied or tried to prove it is not so, although I know of several cities where this important department is under the jurisdiction of the building department. Can anything be more absurd? Truly, I am not able to state why this is.

Statistics taken from any community that does not have supervision of plumbing will invariably bear out the fact that the mortality rate is higher there than where there is protection.

Safe water supply has reduced typhoid fever ratings, in many cases, 90 per cent.

Safe waste disposal systems reduce many other diseases and make possible the great skyscraper of the modern city. How impossible, how useless, how untenantable would be such buildings as the new Hotel Stevens in Chicago with its 3,000 rooms and 3,000 baths, the Equitable Building in New York, the wonderful Capitol building at Washington, without plumbing! Why need I say more? Every city has its worthwhile buildings. But of what value would they be without the conveniences that take away the wastes and the plumbing inspector who assures the public that it will not be harmed by unsafe plumbing.

The inspector is the key man. He determines whether a job is safe or not. Even in your own home he stands as the protector to your family.

Is he paid in proportion to this responsibility? Inquire of your city official what the inspector is paid, and you will be surprised that he does not receive as much as the plumber who puts the work in. Check up your own town and learn the conditions. The writer lives in a city of some 60,000 people. The inspector that protects the health of these people receives the wonderful salary of $1,800 per year while the journeyman plumber on whose work he passes judgment receives $12.00 per day or approximately $3,700 per year. Is there any honesty in this? Why does the public expect, for such a meager pittance, the services of a man as qualified as an inspector has to be? Of course, some pay more and the responsibility probably is correspondingly greater, but all are underpaid.

2
3
4
3
2
Burnham Boilers
You Can Read the Burnham Economy Story From This Section
THERE it is, the whole story in a nut shell, so to speak. *Deep* heat grabbing channels across the boiler in the first story.
Long heat stopping flue ways, in the second story. Like hallways in a hotel, they make the heat travel back and forth.
When it's done that travel, it's so all tuckered out that only enough heat gets up chimney to make the draft. It's this long fire travel that makes its short coal bill.
Burnham Boiler Corporation
Irvington, N. Y.
New York Office: 30 East 42nd Street
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It has been the writer's personal privilege to know inspectors from all over the United States, and I do not know of one plumbing inspector that is paid adequately for the work that he does and the responsibility that he shoulders.

You might now ask what can be done? The best way is to endeavor to inform the public in every community of the importance plumbing plays in their every day life, then see your city commissioner and tell him that in all honesty and fairness the inspector should be paid what he is worth, for, as I said in the beginning, every man is worthy of his hire.

T. MARTIN.

MORE ASSOCIATION OUTINGS ANNOUNCED

Two more outings in the New York section have recently been announced. These are the affairs of the Queensborough branch, Master Plumbers Association of the City of New York, which is to meet at Narragansett Inn, Lindenhurst, L. I., on September 24, and the Eastern Long Island Association, which plans to hold its outing at Montauk Manor, Montauk, L. I., on August 13. It is probable that several Suffolk County local associations will join the Eastern Long Island Association. The Manhattan branch will meet at Travers Island during the second week of September, the exact date not being settled, and the South and North Shore Associations of Long Island are planning to go to Lighthouse Inn, Freeport, L. I. The tentative date selected is August 27.

The annual outing of the Master Plumbers' Association of the Oranges (N. J.), will be held this year at Connor's Hotel, Water Witch, N. J., near the beautiful Atlantic Highlands. Luncheon and dinner will be served in the hotel, and the usual out-door games will be held throughout the day, closing with a baseball game between the master plumbers and the salesmen. The following committee is in charge of the arrangements for the outing: George H. Brenner, chairman; Alexander F. Berg, Frederick W. Hoffman, Alfred T. Brady, George Buggeln and William J. Wheatley.

The Detroit, Mich., Association of Sanitary and Heating Contractors, Inc., will hold its annual picnic at Commerce Lake, Mich., on Saturday, August 13. This will be a general outing for the plumbing and heating trade, and jobbers and manufacturers have been invited to attend. Wm. Schonhofen is chairman of the arrangement committee.

The Denver Master Plumbers' Association will hold its annual picnic on its own grounds at Cold Springs, Colo., on Sunday, August 7, according to official announcement just issued by Secretary-Manager H. S. Lynn. Every member of the plumbing and heating industry in Denver and vicinity has been invited to attend this outing, which it is planned to make bigger and better than ever.

The Master Plumbers' Association of Plainfield, N. J., and Vicinity will hold its annual clambake on Saturday, August 27, it is announced by C. Edward Krausse, secretary. The place selected by the committee, which is made up of N. Cody, Edward Simon, William Hayes and George McVoy, is H. Pfaff's restaurant, which is on the Park Avenue road to Metuchen, N. J.

PLANS COMPLETED FOR CONNECTICUT OUTING

The final plans for the Connecticut State Master Plumbers' Association's annual outing and field day have just been announced by G. S. Bull of Hartford. The affair is to be held at Double Beach, Branford, Conn., starting at 10 a. m. on Thursday, August 18. Sports planned include swimming, boating, baseball, running, jumping and races

The Herman Nelson Unit Heater

With the Wedge Core

RADIATOR

For Operating Steam Pressure from 0 to 125 lbs.

No reducing valves necessary—greater range of flexibility and capacity—smaller pipe lines to lower installation cost.

Cannot be damaged by contraction or expansion strain—even freezing cannot harm it.

Leak-proof, rust-proof and indestructible in service—your ideal of a trouble-proof efficient Unit Heater.

Many other reasons, each distinct and exclusive, why the Herman Nelson Unit Heater can best serve you for heating

Factories · Mills · Railroad Shops · Roundhouses
Warehouses · Garages · Gymnasiums · Auditoriums

are contained in Bulletin G. It is free for the asking. Address

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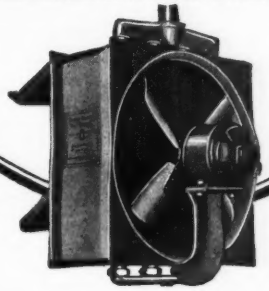
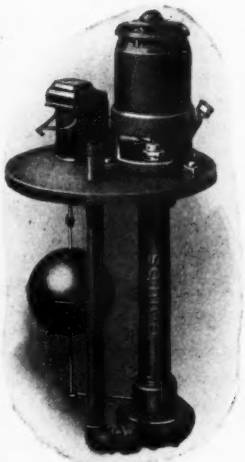
UNIVENT *and the* HERMAN NELSON INVISIBLE RADIATOR



for Drainage!



A COMPACT, self-contained unit for draining cellars, pipe tunnels, elevator pits, and for numerous other uses.

Automatic operation. Economical. Reliable. Quiet.

Pump Goulds Centrifugal. Cast iron casing. Wearing parts of bronze.

Motor ¼ H. P. vertical type, mounted on pit cover.

Switch Double pole type, mounted on pit cover. All working parts entirely closed.

Float Copper float and brass rod actuate the automatic switch.

Send for complete information and price.

Goulds Pumps, Incorporated
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GOULDS SUMP PUMPS

FOR POWER - - - - ECONOMY

The average flow of water over the U. S. and Canadian Falls of Niagara is estimated at 222,400 cubic feet per second, a potential horse power of approximately 4,900,000.

Duplex Type VS Sump Pump

Keeping up the pace of Pioneers in Pump Design

ECONOMY engineers "carry on" unceasingly. No design is accepted as *final.* Extensive improvements in Economy design constantly make possible new high efficiencies. Still the work goes on.

Nor in each individual case is our work considered complete when the pump is assembled. Economy responsibility extends to the installation, for only when correctly applied can an efficient pump operate efficiently. So the cooperation of Economy engineers is offered free to assure the right capacity.

As for proof of Economy's mechanical dependability,—there are cases on record where these pumps have functioned without interruption for repairs, for fifteen years and more.

When you plan to install a pump remember that Economy finishes the job it begins. Further data sent on request.

An improved line of general surface drainage and sewage pumps for all capacities. Made with either standard or non-clogging cases and impellers. Outstanding features of design are

1. Individual pump mounting and accessibility.
2. Ball thrust bearing with micrometer adjustment for impeller position.
3. Pressure grease lubrication to all bearings.
4. Bronze impellers.
5. Renewable bronze bearings.
6. Motors continuously rated for 40 degrees temperature rise.

Ask for Bulletin No. 407 describing this type of pump in detail. Write us.

Economy Pumping Machinery Company
3431 West 48th Place, Chicago
Representatives in Principal Cities—Telephone and address under Economy Pumping Machinery Co.

Economy Pumps

of all sorts for both men and women. Luncheon and dinner will also be served. The outing committee asks that prospective guests communicate with the New Haven Master Plumbers' Association, 818 Chapel street, New Haven.

SALT LAKE ASSOCIATION TO HOLD OUTING

The Salt Lake City, Utah, Association of Sanitary and Heating Engineers will hold its outing August 9 at Saltair, according to the decision reached at the regular bi-weekly meeting of that organization held July 21 in the association suite in the Hooper building. The journeymen will also be invited.

The members, journeymen and ladies are planning to go out in the afternoon and go in bathing in Great Salt Lake, according to William A. Bywater, chairman of the entertainment committee. A basket lunch will be enjoyed later, the ice cream and soda being furnished by the association. Dancing will follow in the evening. In addition to Mr. Bywater, Herman Schrader and Sylvester Walsh are members of the entertainment committee.

NEWTON MASTERS HOLD ENJOYABLE OUTING

The Master Plumbers' Association of Newton, Mass., held its annual outing recently at Shore Gardens, Nantasket Beach, Mass. The program was so arranged as to make the day an enjoyable one for all, there being games for the master plumbers, their wives and children. The baseball game between the master plumbers and the jobbers' salesmen was a see-saw affair, ending with the salesmen on the wrong end of an 11 to 10 score. The 50-yard dash for women was won by Mrs. John Raftery, who was closely followed by Mrs. Walter Heggen. Miss Helen Ryan and Miss Doris Williams finished first and second, respectively, in the 50-yard dash for girls 14 to 18 years of age. The 30-yard dash for girls 8 to 12 years of age was won by Miss Alice McGarrity, and Miss Margaret Gallagher was second. Richard Gallagher showed his heels to the field in the 30-yard race for boys of 8 to 12 years of age and was followed over the finish line by Charles Gallagher. The potato race was won by Mrs. John Foster, John Lewis getting second.

Obituary

Lyle G. Emery

Lyle G. Emery, a master plumber of New Castle, Pa., who had been in the plumbing business in that city for a number of years and who recently retired, died on July 27 at the New Castle hospital from injuries received in an automobile accident on July 25. Mr. Emery was in his 69th year. He was well-known in plumbing and heating circles and did a great deal of traveling. He specialized in the installation of large heating plants, such as the Court House in Pittsburgh and also had much to do with the erection of the Mint in China. He was a member of 243, F. and A. M., and Syria Temple. He leaves a widow, a daughter and a brother.

Nels Skogg

Nels Skogg, founder of the N. Skogg & Son Plumbing Co., Green Bay, Wis., died on July 19, after an illness of four weeks. Mr. Skogg was a native of Stockholm, Sweden, and came to the United States when 17 years of age. In 1881 he went to Minneapolis, Minn., and eight years later moved to Green Bay, where he has lived ever since. In 1890 he engaged in the plumbing business, from which he withdrew in 1896. He re-entered the business in 1908. Mr. Skogg was a charter member of the Wisconsin Master Plumbers' Association, having previously been a member of the Northwest Plumbers' Association.

THIS WEEK

AMONG MANUFACTURERS, WHOLESALERS AND THEIR SALESMEN

BUYS PHILADELPHIA BRANCH OF WALWORTH CO.

McArdle & Cooney, Inc., 519 Arch street, Philadelphia, Pa., have acquired the assets, stock, quarters and good will of the Philadelphia branch of the Walworth Co., it is announced by the purchasing firm. With the purchase, this concern has secured the exclusive rights to the distribution of Walworth Co. products in the section commonly known as the Philadelphia territory. For the time being, both the former office and showrooms of the acquired branch at 241-45 Arch street, and the warehouse at Washington avenue and Front street will be kept open, but later the business of the companies will be consolidated at the 519 Arch street headquarters. In their announcement, officers of McArdle & Cooney, Inc., stress their desire to continue the cordial relations with the various branches of the trade that were enjoyed by the Walworth Co. branch. No changes in employee personnel are contemplated in the immediate future.

BRITISH TERMINATE LIGHT CASTINGS AGREEMENT

American manufacturers of baths and other sanitary supplies will be interested to know that the potentialities of the English market have been considerably increased as a result of the termination of an agreement under which the British builders' merchants undertook to obtain their supplies of baths and other light castings only from British manufacturers who were members of the National Light Castings Association.

The arrangement has been in force throughout the United Kingdom for some considerable time, but for several years it has been breaking down. Its failure has been brought about largely through the action of builders who refused to pay the prices required by merchants acting under the agreement.

PIERCE, BUTLER & PIERCE BRANCH HOLDS OUTING

The Brooklyn-Queens (N. Y.) branch of the Pierce, Butler & Pierce Mfg. Corp., located at 9602 Metropolitan avenue, held an office outing on Saturday, July 23. Despite a downpour of rain, employes of the branch boarded a bus early Saturday morning, journeying to an inn in Sayville, Long Island. There the party of 42 persons enjoyed an excellent dinner, played games and danced, and many took advantage of the opportunities for swimming. The committee in charge was made up of J. J. Wessmiller, branch manager, Miss K. Wedekind and Miss A. T. Hamel. Guests included several officers and executives from the main office.

BROOKLYN SALESMEN ANTICIPATE ORGANIZATION

Plans are now being made for the formation of a salesmen's association in Brooklyn, N. Y., it is announced by F. A. Crutchley of Edward Crutchley, Jr., 477 Eighty-third street. So far, names of salesmen selling plumbing and heating goods in that city are being secured, and when a sufficient number of interested men are known, a meeting will be called to discuss the formation of the association. Officers of the New York chapter, National Association of Plumbing and Heating Salesmen, have offered their help, and it is possible that the new body, if formed, will eventually affiliate with the national association. Mr. Crutchley asks that interested salesmen get in touch with him by letter or telephone.

TO HOLD GAS CONVENTION

The ninth annual convention of the American Gas Association will be held at the Stevens Hotel, in Chicago, October 10 to 14, it is announced.

RESEARCH IN OIL HEATING

Research work relative to the air ratio, shape and size of combustion chamber, possible draft variations and methods of mixing fuel in domestic oil burners is to be conducted at Johns Hopkins University, Baltimore, by Theodor Theodorsen of the Johns Hopkins faculty. Mr. Theodorsen is one of the leading authorities in the United States on combustion and drafts. He received his diploma in engineering from the Technical University of Norway at Trondhjem in 1922. The following year he had a fellowship for research at that university and conducted original experiments for the Norwegian government in the field of air, steam and water pressures. Mr. Theodorsen will conduct his experiments in the laboratory used by Arthur H. Senner of the U. S. Department of Agriculture early this year to investigate the merits of domestic oil heating equipment.

TRI-STATE GOLF ASSOCIATION FORMED AT CAMBRIDGE SPRINGS

A joint meeting of the Central Trades Golf Association of Pittsburgh, Pa., the Northern Ohio Trade Golf Association of Cleveland, Ohio, and the Western New York Trade Golf Association of Buffalo, New York, was held at Cambridge Springs, Pa., on Monday, July 25.

The attendance was very encouraging taking into consideration the great number of members on vacation at this time.

The members present formed a new association to be known as the Tri-State Golf Association, the object of which is to hold one meeting a year at Cambridge Springs.

The following officers were elected for the ensuing year: R. Payne Wettstein of "Domestic Engineering," president; R. M. Stackhouse of the Cleveland branch of the American Radiator Co., vice president; John Moore of the Cleveland branch of the Trenton Potteries Co., secretary-treasurer. The dues of the association were set at $3.00 per year.

It was decided to hold the first tournament of the new association at Cambridge Springs between September 20 and October 10 this year.

The new association was formed with a great deal of enthusiasm and the 28 men present at the meeting at the Bartlett Hotel in the evening were made charter members.

The course at Cambridge was in excellent condition

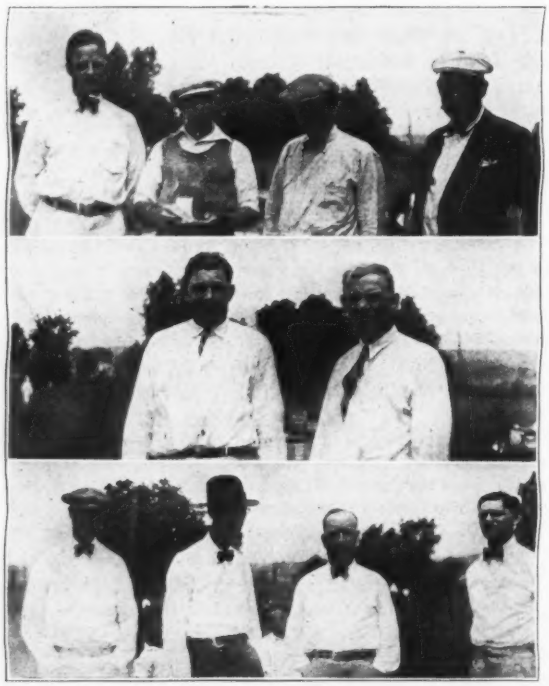
and the weather was exceptionally nice with the result that a great many members of the three associations arrived on Sunday and stayed over until Tuesday. The morning round on Monday was merely a get-acquainted round, the handicaps being based on the morning cards.

Prizes were awarded at the dinner in the evening; three balls were given to the winner of each threesome and the winners were as follows: L. N. Castin of Buffalo, C. E. Evans, Jr. of Buffalo, G. V. Hamilton of Pittsburgh, A. A. Ahlff of Buffalo, Paul Stroud of Pittsburgh, R. M. Stackhouse of Cleveland, F. O. Carfer of Buffalo, Robert Tener of Pittsburgh.

A prize of three balls for the low gross score of the day was won by Flynn Kirkpatrick, Pittsburgh, with an 85. Second low gross was won by Harvey Eggleston with an 88. A prize of three balls was given to the high gross score and was won by Joseph Miles, Pittsburgh, with 140. Prize for the most number of strokes taken on the twelfth hole by C. E. Evans, Sr.—10 strokes. A prize of three balls was given to the oldest young golfer present, awarded to George H. Bailey of the Bailey-Farrell Mfg. Co.

The scores of those present were as follows:

	Gro.	Hcp.	Net		Gro.	Hcp.	Net
J. A. McKissock	103	30	73	Joe Miles	140	35	105
W. Haggerty	128	35	93	R. Payne Wettstein	112	30	82
F. O. Carfer	95	26	69	Joe Weldon	120	30	90
Mack Snively	100	20	80	Paul Stroud	89	10	79
L. N. Castin	112	35	77	Harvey Eggleston	88	10	78
P. J. Hopkins	102	20	82	C. S. Pitkin	94	14	80
C. E. Evans, Jr.	101	30	71	A. A. Ahlff	101	26	75
Henry Bailey	104	20	84	Jack Moore	98	20	78
J. Walton	100	20	80	Bill Bryar	102	25	77
R. M. Stackhouse	99	19	80	Pete Snelsire	89	15	74
George Bailey	101	18	83	Flynn Kirkpatrick	85	12	73
H. A. Hexemer	107	22	85	Bob Tener	85	16	69
C. E. Evans, Sr.	133	35	98				
George V. Hamilton	130	35	95				



Top picture, left to right: A. A. Ahlff, president, Western New York Trade Golf Association; J. A. McKissock and Joseph A. Weldon, both of Weldon & Kelly Co., Pittsburgh, Pa., and William B. Bryar of Bailey-Farrell Mfg. Co., Pittsburgh.—Middle picture: Henry Bailey and George Bailey, both of Bailey-Farrell Mfg. Co.—Lower picture: Paul Stroud, Mack Snively, George Hamilton and Joseph Miles, all of Pittsburgh

Personal Mention

Warren D. Blatz, general sales manager of the Bridgeport Brass Co., Bridgeport, Conn., has resigned this position, it is announced. At the present time Carl F. Dietz, president of the company, is guiding the sales organization.

Benjamin F. Blair, manager of the San Francisco branch of the Standard Sanitary Mfg. Co., has just returned from his vacation on the shores of Lake Tahoe, where he played considerable golf.

Theodore F. Merseles, who was recently elected president of the Johns-Manville Corporation, New York City, as told in these columns at that time, will return about

Theodore F. Merseles, the new president of the Johns-Manville Corporation

the middle of August from a short pleasure trip to Europe and will at once assume his new duties.

Edward Looker, of San Francisco, Calif., secretary of the California Sanitation Development League, was in Chicago this week on business.

Myron Czarniecki and **Richard Lewis,** of the A. M. Byers Co., Pittsburgh, Pa., repaid a golf engagement to a few of their friends in the trade in the persons of: William B. Bryar of Bailey-Farrell Mfg. Co., Harvey Eggleston of American Radiator Co., Shirley Mitchell of Walworth Co., Robert Tener of Bailey-Farrell Mfg. Co., C. S. Pitkin of Crane Co. and G. N. Malone of Malone Plumbing Supply Co., on Friday, July 29, at the Pittsburgh Field Club, where they enjoyed an afternoon's golf, and dinner in the evening.

Miss Lucy Graham, an experienced saleswoman, has been employed to act as advisor to the women who visit the showroom of Crane Co., New York City.

E. Van L. Cherry, Baltimore district representative for the A. M. Byers Co., has just returned from a vacation spent at Ocean City, Md.

Charles Simmer, who has been covering the Wilkes-Barre, Pa., territory for the National Radiator Co., has resigned his position with that concern, and accepted a position with the American Radiator Co. Mr. Simmer will make his headquarters in Wilkes-Barre, and will travel the adjacent territory.

Raymond Fink has become associated with the United Plumbers Supply Co., Inc., New York City, in the capacity of general manager of sales, according to an announcement by E. A. London, president of the company. Mr. Fink was formerly vice president and general manager of sales for the Pierce, Butler & Pierce Mfg. Corp., where he made many friends in the trade.

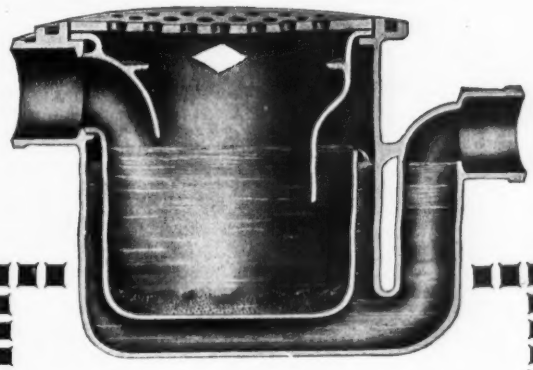
BUILDING PERMITS FOR JUNE, 1927

The total building permits granted in 211 cities during the month of June amounted to $305,443,200, according to reports of the 211 building departments to F. W. Dodge Corporation. The above figure was 2 per cent over the May, 1927, total and 13 per cent behind the June, 1926, total. During last month there were 80 cities which showed increased permit valuations over June of last year and 131 cities which showed decreased permit valuations.

Permits granted in these cities during the first half of this year, amounting to $1,729,513,300, show a loss of 9 per cent from the total for the first half of 1926.

June "honor roll" cities (those reporting more than a million dollars in total permits and an increase of 20 per cent or more over their June, 1926, totals) numbered seventeen. The "honor roll" cities for June were: Long Beach (Cal.), New Haven, Indianapolis, Flint, Minneapolis, Elizabeth, Newark, Orange, Asheville, Akron, Dayton, Toledo, Tulsa, Reading, San Antonio, Richmond (Va.) and Seattle.

	June, 1927		June, 1926	
	No. of Permits	Valuation	No. of Permits	Valuation
Alabama—				
Birmingham	575	$1,682,100	559	$1,927,200
Arizona—				
Phoenix	125	333,700	104	278,500
Arkansas—				
Ft. Smith	205	116,700	128	179,500
Little Rock	222	262,300	213	291,300
California—				
Alameda	72	99,600	74	217,400
Berkeley	201	568,100	248	474,400
Compton	26	40,000	38	79,000
Fresno	70	216,100	87	261,700
Glendale	138	488,500	219	1,020,800
Long Beach	355	1,420,000	343	503,500
Los Angeles	3,100	9,355,200	3,068	11,856,400
Oakland	748	2,141,700	853	2,674,700
Pasadena	238	918,500	221	1,169,600
Sacramento	160	383,100	210	1,094,900
San Diego	527	893,300	753	1,493,400
San Francisco	838	3,926,400	832	8,479,100
San Jose	91	179,500	113	439,400
Santa Ana	27	71,400	36	85,700
Stockton	99	241,200	84	144,500
Colorado—				
Colorado Springs	63	26,200	79	44,100
Denver	948	1,043,300	540	1,037,600
Pueblo	156	193,500	109	106,400
Connecticut—				
Bridgeport	149	340,900	150	590,700
New Haven	205	1,132,900	182	594,600
Delaware—				
Wilmington	103	396,500	127	600,700
Dist. of Columbia—				
Washington	492	2,898,900	606	6,063,900
Florida—				
Jacksonville	405	1,082,800	462	2,197,100
Lakeland	26	30,800	81	210,600
Miami	268	288,800	753	3,953,900
Pensacola	55	118,600	60	59,400
Tampa	436	345,800	621	1,127,300
Georgia—				
Atlanta	357	946,400	379	993,500
Macon	186	211,800	168	88,000
Savannah	50	207,400	51	433,400
Idaho—				
Boise	72	59,600	60	47,800
Illinois—				
Aurora	132	437,700	151	350,100
Chicago	1,133	27,939,900	1,267	31,374,500
Decatur	197	510,800	135	441,100
East St. Louis	41	363,700	119	300,400
Evanston	170	1,816,300	118	1,561,700
Maywood	57	161,100	104	471,500
Peoria	164	348,600	157	386,900
Rockford	243	684,400	216	662,300
Springfield	127	250,400	176	377,600
Indiana—				
Elkhart	73	366,900	79	176,200



Effective wherever installed

This effective device may be used with equally gratifying results wherever installed. Garages, boiler rooms, comfort stations or showers are prospective users and you can easily sell these places, if you take advantage of the opportunities in your community.

McDermott 3-in-1

SAND TRAP—GAS ELIMINATOR—FLOOR DRAIN

is the most sanitary device of this kind on the market. All sand that is washed into the drain settles at the bottom of a removable bucket, while top and bottom vents eliminate all gas fumes. Endorsed by Fire Underwriters and Boards of Health everywhere.

Full details on request.

The EASTERN FOUNDRY COMPANY

BOYERTOWN, PENNA.

M-VB Tank Fittings

When you say "Good-bye" after the work is done, it's mighty satisfying to depart with the feeling that the materials you've used have been of the same high quality as your workmanship. This is the satisfaction the better plumbers in every community experience when they utilize M-VB Closet Tank Fittings as standard practice.

Made by
Morency-Van Buren Mfg. Div., Sturgis, Mich.
Distributed by The American Pin Co. Division
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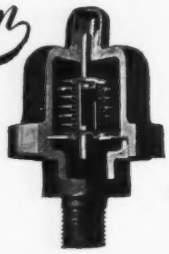
Sylphon



No. 527
Quick Vent Valve
Cut Open View

The rapid and complete venting of air from mains and risers is assured by the well-known, durable and sensitive Sylphon Bellows, used as thermostat for this valve.

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Originators and Patentees of the Sylphon Bellows
Knoxville, Tennessee, U.S.A.
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Save the Plumber TIME and MONEY—

They come ready to install with no waste of material. Try them on your next job and be convinced of their merits.

Manufacturers of complete roughing-in systems for either CAST IRON or SCREWED PIPE installations. We have fittings for any operation—from the smallest bungalow to the tallest building.

Write for catalog of Modern and Economical Plumbing Roughing-In systems.

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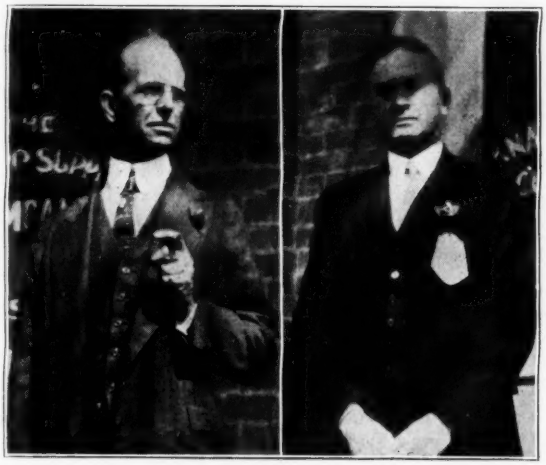
Certain Service

The service that the Rathbun Basement Drainer will give is positively certain. Be sure of yourself when you recommend a basement drainer to your customer and you will not only make your profit but a booster. *Suggest Rathbun!*

The Rathbun Co.
1036 Beaubien St., DETROIT, MICH.

	June, 1927		June, 1926	
	No. of Permits	Valuation	No. of Permits	Valuation
Evansville	313	230,400	606	313,300
Fort Wayne	196	716,600	249	624,600
Gary	313	2,027,800	395	2,914,600
Hammond	140	503,700	123	348,200
Indianapolis	1,456	4,078,600	1,768	2,112,000
Richmond	67	107,000	79	149,200
South Bend	358	800,600	419	1,796,900
Terre Haute	209	507,300	216	114,500
Iowa—				
Cedar Rapids	128	106,200	137	120,400
Davenport	109	89,200	157	157,300
Des Moines	104	316,800	132	211,000
Dubuque	99	99,800	156	95,500
Mason City	81	114,400	42	61,500
Sioux City	84	206,300	106	459,700
Kansas—				
Kansas City	124	323,000	237	240,800
Topeka	124	134,900	130	328,900
Wichita	190	401,600	195	333,600
Kentucky—				
Lexington	62	179,100	76	127,400
Louisville	289	1,062,200	480	2,415,000
Louisiana—				
New Orleans	201	988,600	214	1,358,900
Shreveport	160	219,100	248	335,300
Maine—				
Portland	263	333,000	148	335,800
Maryland—				
Baltimore	2,063	4,258,400	2,256	4,443,900
Cumberland	25	74,200	30	92,200
Massachusetts—				
Beverly	41	59,200	44	73,600
Boston	1,000	5,302,600	1,133	4,545,800
Brockton	84	95,400	116	225,100
Cambridge	126	609,300	172	1,024,900
Chelsea	28	44,300	47	107,200
Chicopee	50	77,200	70	174,700
Fall River	87	335,400	78	160,000
Fitchburg	26	28,000	52	208,700
Haverhill	35	222,200	37	94,400
Holyoke	42	95,500	58	727,600
Lawrence	17	27,200	34	113,200
Lowell	97	149,000	96	60,400
Lynn	74	228,600	62	507,600
Medford	113	452,100	170	495,400
New Bedford	120	255,900	114	404,900
North Adams	99	30,900	99	57,100
Quincy	229	515,600	204	489,500
Salem	85	224,900	87	191,900
Somerville	110	294,700	132	388,900
Springfield	217	914,500	274	1,150,600
Waltham	57	200,900	65	247,000
Worcester	253	824,300	375	2,017,400
Michigan—				
Battle Creek	102	168,000	106	365,000
Bay City	234	78,600	189	275,100
Detroit	2,795	19,071,200	4,525	17,376,800
Flint	1,015	2,246,700	659	1,334,600
Grand Rapids	625	861,700	779	1,159,600
Jackson	122	160,600	142	313,500
Kalamazoo	135	100,600	184	177,300
Lansing	134	404,800	216	322,200
Pontiac	183	471,500	219	5,470,100
Saginaw	147	652,900	209	208,300
Minnesota—				
Duluth	313	337,900	280	1,039,200
Minneapolis	704	2,948,000	833	1,793,600
St. Paul	498	1,056,000	606	1,663,200
Mississippi—				
Jackson	200	223,500	294	215,900
Missouri—				
Kansas City	600	1,629,600	463	2,259,500
St. Joseph	63	38,000	92	102,800
St. Louis	1,011	4,300,200	1,340	3,791,300
Montana—				
Butte	.....	3,800	20	100,700
Nebraska—				
Lincoln	101	349,900	96	347,500
Omaha	115	492,000	134	880,900
New Hampshire—				
Manchester	104	126,700	138	279,600
New Jersey—				
Atlantic City	80	389,800	337	702,400

	June, 1927		June, 1926	
	No. of Permits	Valuation	No. of Permits	Valuation
Bayonne	18	102,100	39	252,100
Camden	108	350,800	134	392,100
East Orange	142	1,222,300	184	1,186,700
Elizabeth	151	1,608,400	192	759,400
Hoboken	26	55,700	25	27,400
Jersey City	160	1,263,100	150	1,098,300
Newark	568	3,544,400	608	2,936,700
Orange	81	1,388,700	65	332,000
Passaic	115	230,600	82	316,400
Paterson	232	521,500	249	443,700
Plainfield	81	318,100	89	309,000
Trenton	141	842,900	186	995,900



W. C. Hand, secretary, treasurer, and assistant manager of the Knapp Supply Co., of Muncie, Ind., and W. E. Price, vice president of the Knapp Supply Co.

New Mexico—				
Albuquerque	74	137,200	60	78,200
New York—				
Albany	664	1,636,100	702	5,441,000
Auburn	22	22,000	33	32,300
Binghamton	425	913,100	389	373,300
Buffalo	672	2,616,900	965	3,470,900
Mt. Vernon	65	1,824,600	56	478,000
Bronx	1,167	12,900,900	1,258	16,919,900
Brooklyn	1,307	16,179,900	3,092	23,805,500
Manhattan	343	31,432,900	434	25,935,800
Queens	1,286	15,765,600	2,280	18,380,300
Richmond	342	1,408,400	272	1,025,500
N. Y. City (all boros)	4,445	77,687,700	7,336	86,067,000
Niagara Falls	149	336,100	225	795,500
Schenectady	139	674,100	115	245,800
Syracuse	411	1,750,800	385	1,787,700
Troy	114	135,600	83	166,500
Utica	49	223,800	73	288,700
Watertown	81	213,800	83	188,000
Yonkers	248	2,485,800	187	3,104,300
North Carolina—				
Asheville	134	2,816,800	174	1,021,200
Charlotte	76	337,200	70	1,073,500
Durham	53	223,100	60	433,000
Greensboro	86	344,500	105	749,900
Wilmington	14	23,800	14	43,100
Winston-Salem	164	892,800	98	152,500
North Dakota—				
Fargo	55	214,800	33	200,900
Grand Forks	23	58,900	29	291,600
Ohio—				
Akron	669	2,087,500	510	1,526,900
Canton	193	554,500	285	495,600
Cincinnati	1,909	3,244,400	1,912	3,667,100
Cleveland	1,196	3,414,000	1,539	7,056,900
Columbus	495	1,262,900	702	2,276,100
Dayton	326	1,717,800	330	583,900
Hamilton	84	160,700	113	273,000
Mansfield	*74*	*173,700*	*65*	*116,500*
Sandusky	49	89,100	75	70,000
Springfield	122	511,700	144	156,500

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AN AWKWARD JOB
of Pipe Threading Made Easy

as is also work at the bench by the

DUPLEX HART'S

Die Stock

of the Ratchet Pattern

Dies besides being thoroughly adjustable are quickly opened to prevent loss of time and injury to work and cutting edges.

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Your Reputation *and* Koven Products

To maintain trade you give to your customers the best of everything—service, good workmanship and most important, superior products.

Guarantee your reputation by installing Koven products on every job that calls for sturdy, permanent and serviceable sinks and drains.

The Scullery Sink illustrated below is made in four stock sizes of No. 12 gauge steel, galvanized after fabrication. Special sizes made to order with or without drainboards or partitions. *Write for catalog.*

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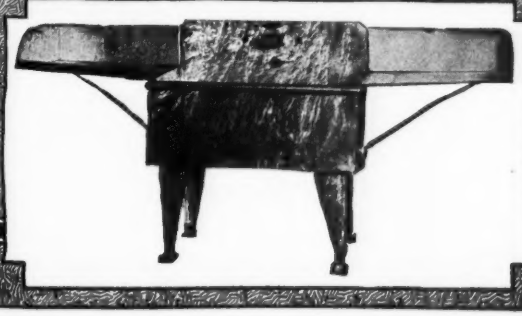
154 Ogden Avenue, Jersey City, N. J.
New York City Warerooms
50 Cliff Street



	June, 1927		June, 1926	
	No. of Permits	Valuation	No. of Permits	Valuation
Toledo	637	2,611,400	659	1,826,400
Youngstown	292	895,600	225	720,500
Oklahoma—				
Oklahoma City	199	1,149,900	144	1,488,600
Okmulgee	20	27,900	8	333,200
Tulsa	257	3,028,200	206	633,500
Oregon—				
Portland	926	2,372,200	1,092	2,879,200
Pennsylvania—				
Allentown	91	812,900	100	784,300
Altoona	219	322,100	179	351,400
Bethlehem	66	235,000	78	170,100
Easton	36	104,200	44	171,200
Erie	273	419,500	223	521,800
Harrisburg	84	262,700	93	703,600
Johnstown	57	106,600	75	171,200
Lancaster	62	241,400	82	135,700
Philadelphia	1,953	14,843,600	1,176	16,642,700
Pittsburgh	812	2,293,500	852	3,731,900
Reading	220	1,007,800	274	524,000
Scranton	186	424,000	204	1,396,200
Wilkes-Barre	210	492,700	137	563,200
York	84	171,900	122	84,500
Rhode Island—				
Providence	204	1,059,100	586	2,061,600
South Carolina—				
Charleston	38	42,700	38	38,100
Columbia	64	146,800	36	342,300
South Dakota—				
Sioux Falls	26	77,100	39	110,300
Tennessee—				
Chattanooga	246	277,100	302	532,600
Knoxville	252	432,900	255	630,200
Memphis	404	1,060,400	577	1,076,100
Nashville	283	414,700	298	613,400
Texas—				
Beaumont	181	447,700	172	112,600
Dallas	260	1,466,200	349	2,292,400
El Paso	59	94,000	68	76,500
Fort Worth	363	1,206,500	286	2,208,100
Galveston	206	202,200	285	433,200
Houston	519	1,726,700	555	1,761,900
San Antonio	269	1,067,700	251	633,300
Utah—				
Ogden	20	53,200	23	365,000
Salt Lake City	129	966,900	108	362,100
Virginia—				
Norfolk	195	348,300	174	608,100
Richmond	162	1,263,700	224	824,600
Roanoke	86	244,600	137	364,700
Washington—				
Everett	129	57,500	91	107,800
Seattle	805	3,266,100	852	2,670,400
Spokane	181	195,200	181	240,900
Tacoma	229	243,700	261	518,000
West Virginia—				
Charleston	70	83,500	90	251,400
Huntington	50	76,800	77	140,200
Wheeling	94	326,800	95	140,600
Wisconsin—				
Kenosha	159	365,100	275	528,300
Madison	148	400,200	197	470,200
Milwaukee	921	3,720,200	3,681	3,635,700
Oshkosh	129	205,500	160	593,100
Racine	140	909,600	166	420,000
Sheboygan	154	360,100	249	320,300
Wyoming—				
Cheyenne	37	57,000	26	41,000
Total (211 cities)	62,553	$305,443,200	75,202	$350,433,200

Canton, Ohio.—Plans are under way by the Y. M. C. A. for the erection of a new building to cost $1,000,000. H. Dickson, Third and Ludlow streets, is secretary. Schenck & Williams, Third National Bank building, are the consulting architects.

NOTE—

All Metaphram Regulators carry the guarantee of the National Regulator Company and all users of these regulators are entitled to the same service as are the users of the National System of Temperature Control.

NATIONAL REGULATOR CO.
2301 KNOX AVENUE CHICAGO

"Investigate!"

New Trade Literature

Catalog of Peerless Manufacturing & Supply Co.

Peerless Manufacturing & Supply Co., of New York City, has just issued a catalog of its china, brass and rubber goods and plumbing specialties. Closet screws and bolts, sink and wash tray bolts, tank valves, sink strainers, bath cock nozzles, sewer rods, wiping cloths, pet cocks, etc., are among the articles listed and illustrated.

Bulletin of L. J. Wing Mfg. Co.

L. J. Wing Mfg. Co., of New York City, has just issued a new bulletin about its motor-driven forced draft blower. This bulletin, No. 46, is written in non-technical language, and explains how electric motor blowers permit low-cost buckwheat coal to be burned in heating boilers, thus effecting fuel economy. Several kinds of installations with various types of low pressure heating boilers are described and illustrated. Tables of capacities are included.

"Handbook on Heating Buildings"

The Bryant Heater & Mfg. Co., of Cleveland, Ohio, has just published a handbook on heating buildings with automatic gas heating plants. Three sizes of boilers are described in detail, and information is given on the subject of how to select the appropriate boiler. Tables of guaranteed ratings and heating surfaces, as well as tables of general dimensions for natural gas and manufactured gas are included.

A System of Vapor Heating

Hutchison Regulator Company, Inc., of Herndon, Va., has just published a pamphlet entitled, "The Hutchison System of Vapor Heating." The pamphlet is written in non-technical language and is addressed to the homeowner. The general principles of vapor heating are explained and the company's system is described. "The Hutchison Fitter" is the title of a 42-page pamphlet also recently issued by this company. It gives directions for installation of this system and is intended for the heating contractor and architect.

Peerless Heater Co.'s Booklets

"Gas Heating with Peerless Boilers" is the title of a booklet recently issued by Peerless Heater Co., of Pittsburgh, Pa. A diagram shows the construction of the company's boiler, the various parts of which are described in detail. "Peerless Gas-Fired Automatic Hot Water Storage System" is the title of an envelope insert being distributed by this company. Besides a description of the boiler the folder contains a table of water heating capacity of the company's boilers in gallons per hour at various temperature rises.

How to Select Oil Heating Equipment

A well printed book recently published by the American Oil Heating Institute is entitled "How to Select Oil Heating Equipment." This book, which consists of 77 pages, 5x8 inches, has many unusual and valuable features. The first that attracts the attention of the oil burner dealer or manufacturer is that terms "oil heater" and "oil heating" are used instead of "oil burner" and "oil burning."

Years ago it was brought to the attention of oil burner manufacturers that the terms "oil burner" and "oil burning" suggested destruction and "oil heater" and "oil heating" suggested comfort, and that therefore the old terms should be abandoned. This was advocated by "Domestic Engineering" in 1923 and now it is given official sanction by this booklet which is the product of Rufus Richart, assistant director of the Oil Heating Institute, New York City.

The book is evidently addressed to householders and others who are sales prospects for oil heaters, but it also can be read with profit by dealers and manufacturers of

4 reasons for using the new Eagle *Super* Flange

1 It is all lead—one piece—strongest construction.
2 Made under 100 pound pressure—no blow-holes or laminations.
3 Easy to adjust—pliable and ductile—feather edge on boot.
4 Easy to handle—rounded corners and beveled edges.

Try the new Eagle *Super* Flange on your next job. Write for free descriptive booklet. *The Eagle-Picher Lead Company, Chicago, Joplin, Cincinnati.*

Producers of lead, zinc and allied products *Eleven Plants—Branches in all principal cities*

Haas

Flush Valves for use in combination with all styles of bowls for all classes of service to operate under low or high pressure water supply.
Water Closets for every type or class of service.
Frost Proof Closets. Direct flush or after flushing.
Write for catalog.

Philip Haas Co., Dayton, O.

The contractor receives a written guarantee on the heating capacity of every Capitol boiler

Guaranteed Heating WITH Capitol Boilers AND RADIATORS

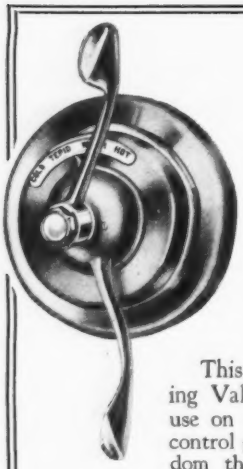
UNITED STATES RADIATOR CORPORATION - DETROIT, MICHIGAN
6 FACTORIES AND 28 ASSEMBLING PLANTS SERVE THE COUNTRY
For 37 years, builders of dependable heating equipment

Adjustable

In less than 30 seconds, any mechanic can adjust the Donnelly Pressure Relief Valve to any desired pressure.

Note the external spring which does away with the dangers of corrosion. Your jobber will gladly supply you.

DONNELLY MFG. CO.
29 Mills St. Malden, Mass.



Elbow Control Thermostatic Water Mixing Valve

This type of Leonard Water Mixing Valve is designed especially for use on surgeons' sinks. The elbow control gives the surgeon greater freedom than with knee or foot action valves.

With the Leonard Elbow Control the temperature of water may be changed to any degree desired without the necessity of standing on one foot while adjusting temperature with the other.

Write for complete catalog of Leonard Water Mixing Valves.

LEONARD-ROOKE CO.
PROVIDENCE :: RHODE ISLAND

List Price Only

$107.50

F. O. B. Indianapolis

Model "X"

A New Murdock Automatic Water System

This new Murdock Automatic Water System has a 16-gallon tank which improves operation by limiting the number of times the pump starts. The rated capacity of 250 gallons an hour—usually exceeded by actual performance, makes it ideal for small home installations, and for soft water service auxiliary to city water supply anywhere.

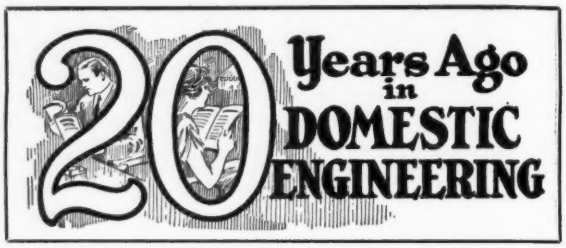
MURDOCK PUMP COMPANY
INDIANAPOLIS

oil heating equipment, as well. The book states that it is designed to give impartial information about oil heating and oil heating equipment to those who are interested in this modern method of providing clean and automatic heat.

The first section of the book discusses oil heating, the supply of oil, selection of satisfactory oil heating equipment and its proper installation. The second section describes and illustrates different brands of oil heating equipment. The oil heaters of twenty-four manufacturers are described, giving their chief characteristics.

"Sink and Tray Wastes"

J. B. Wise, Inc., of Watertown, N. Y., is distributing a leaflet illustrating its continuous wastes and sink and tray wastes. Wastes arranged for trap on the end, and others arranged for trap in the center are shown.



July 27, 1907

The Ruud Manufacturing Company, of Pittsburgh, Pa., has secured a site at 155 West King street, Toronto, Ontario, Canada, where a plant will be established. On the site are two buildings well adapted for manufacturing purposes, and these will be remodeled and equipped with the necessary machinery for the manufacture of the company's products.

———1907———

Crane Co. has bought a half block on Irving street, between Thirteenth and Fourteenth streets, Portland, Ore. On this site the company will erect a six-story brick and concrete building.

———1907———

The Massachusetts Association of Plumbing Inspectors held its annual meeting at the Bay State House in Worcester, Mass., on Wednesday, July 10. *Thomas M. Wilson, of Boston, was elected president. The association will urge the legislature to pass a law regulating plumbing throughout the state. The organization also expressed itself in favor of a state examining board for plumbers, both masters and journeymen.*

August 3, 1907

Raymond Lead Company, of Chicago, has just purchased a plot of land, at Lexington street and Washtenaw avenue, on which it will erect an up-to-date plant. The new plant will be located on the Chicago & Northwestern railroad and will have excellent switching facilities.

———1907———

The National Association of Master Plumbers, Steam, Gas and Hot Water Fitters of the Dominion of Canada will hold its annual convention in Montreal, Quebec, on August 21, 22 *and* 23.

———1907———

Members of the Master Plumbers' Association of Erie, Pa., are holding a picnic at the Yellow Logs Clubhouse on the peninsula today, August 3.

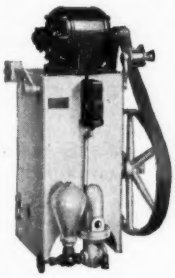
———1907———

The United Bunch of Sheep is the name of a social organization which was recently formed by plumbing and heating salesmen covering the states of Wisconsin and upper Michigan. A constitution has been adopted and officers elected.

New Equipment

A New Small Deep Well System

A concern manufacturing pressure tank water supply systems recently has added to its line a new, small, deep well system. This unit has a capacity of from 170 gallons an hour to 300 gallons an hour. The pumping unit is enclosed and runs in a bath of oil. It is fitted with the differential plunger type of construction and pumps air along with the water in the pressure tank without requiring a separate air pump.



In this system the pumping unit is motor-driven and automatically controlled. Tension on the belt is taken up by a weighted belt idler. This unit is spoken of as "the baby" of the line of deep well systems manufactured by this concern.

NEW JERSEY GOLF ASSOCIATION ADDS TO MEMBERSHIP

Henry Baumgartner, chairman of the membership committee of the Plumbing and Heating Trades Golf Association of New Jersey, announces that the membership of that association has now reached a total of 50, with 75 set as the limit who will be admitted. The manufacturers and manufacturers' salesmen section quota is entirely exhausted, the chairman states, the last two members admitted being Walter Johnson of the American Radiator Co. and Alfred Tesch of the Spencer Boiler Co. The 25 who will be accepted for membership must be either jobbers, jobbers' salesmen, or plumbing or heating contractors.

CONVENTION DATES

August 9, 10 and 11, 1927.—The annual meeting of the American Society of Sanitary Engineering, at Jacksonville, Fla.

August 19 and 20, 1927.—The regular quarterly convention of the Utah State Association of Sanitary and Heating Engineers, at Cedar City, Utah.

September 19-23, 1927.—The fall meeting of the American Welding Society, at Detroit, Mich., with headquarters at the Book Cadillac Hotel. A special section of the convention hall of 10,000 sq. ft. has been set aside for the Welding and Cutting Exposition, which is to be held in connection with the meeting.

September 28, 1927.—Tentative date of meeting of Advisory Committee on Vitreous China Plumbing Fixtures, Department of Commerce building, Washington, D. C.

October 10-14, 1927.—The ninth annual convention of the American Gas Association at the Stevens Hotel, Chicago.

Coming Trade Events

August 6, 1927.—The annual outing of the South Bergen County Master Plumbers' Association, at Kline's Grove, Oakland, N. J.

August 6, 1927.—The annual outing of the Master Plumbing and Heating Association of Norfolk, Va.

August 6, 1927.—The twenty-sixth annual outing of the Paterson, N. J., Master Plumbing and Heating Engineers' Mutual Protective Association, at Feltman's, Coney Island, N. Y.

August 7, 1927.—The annual outing of the Denver Master Plumbers' Association, on its own grounds at Cold Springs, Colo.

August 9, 1927.—The annual outing of the Salt Lake City Association of Sanitary and Heating Engineers, at Saltair, Utah.

August 11, 1927.—The eleventh annual outing of the Master Plumbers' Association of Haverhill, Mass., at Ferncroft Inn, Middleton, Mass.

August 11, 1927.—The annual outing of the Passaic, N. J., *Master Plumbers' Association* at *Bertrand Island*, Lake Hopatcong, N. J.

Meet your real competitors* on their own ground

*By your real competitors we mean all those retailers who address sales messages to your customers—the retailers who sell radios, automobiles, furniture, and hundreds of other things.

They select the newspapers because they have found that newspaper advertising is effective.

Meet them on their own ground with the message of the products and the service you offer—give the prospect an opportunity to balance the benefits of your service with those others.

Advertising Made Easy For You

Our Advertising Editorial Service makes advertising easy for you. We send you a cut each week for the illustration—you clip the copy from your issue of DOMESTIC ENGINEERING, and hand it, with the cut, to your newspaper. Easy, isn't it? Send in your order today for three months' service only $4.20.

DOMESTIC ENGINEERING,
1900 Prairie Avenue, Chicago

Send me the *Advertising Editorial Service* for 12 weeks.
Check for $4.20 enclosed.

Name.....

Address.....

City.....State.....

Classic Sink Fixture

Father of all the other combination sink fixtures and far and away the biggest seller of the lot. You'll make no mistake to keep on selling Classics, no matter how many substitutes come hammering at your door.

CHICAGO FAUCETS

The Chicago Faucet Co.
2700-22 N. Crawford Ave.
Chicago, Ill.

Telephone: Lawndale 1850 - 1851

Ingot Brass

Smelters and Refiners

High Quality Metals

Metals made up to specifications.

R. LAVIN & SONS

2511-2525 W. 21st St.

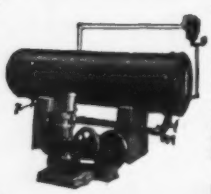
John Hartman, Sales Mgr. Chicago, Ill.

Estabrook
SQUARE BOSTON GREASE TRAP

Estabrook Square Boston Grease Traps are made of the finest materials and designed to give the ultimate of efficient service. They will make your jobs better and longer lasting.

R. ESTABROOK'S SONS
204 First St., So. Boston, Mass.

Deming



DEMING "Oil-Rite" (*Automatically Oiled Right*) Water Systems are built to meet all requirements. A typical deep well pumping outfit is illustrated at the left. Simplicity of construction, unusual accessibility, and durability are outstanding features of Deming Automatically Oiled Pumps and Water Systems. For complete information send for Catalog G.

THE DEMING COMPANY
Established 1880 Salem, Ohio

HAND AND POWER PUMPS

August 10, 1927.—The annual outing of the Master Plumbers' Association of St. Paul, Minn., at Orchard Lake, 18 miles south of Minneapolis, on Paved Highway No. 50.

August 11, 1927.—August tournament of Western Trade Golf Association at Westward Ho Country Club.

August 11, 1927.—The annual outing of the Harrisburg (Pa.) Master Plumbers' Association at the West End Republican Club home on the First Mountain.

August 13, 1927.—The annual outing of the Retail Merchant Plumbers' Association of Minneapolis, Minn., at Orchard Lake, 18 miles south of Minneapolis, on Paved Highway No. 50.

August 13, 1927.—The annual outing of the Association of Master Plumbers of Kansas City, Mo., at Fairyland Park.

August 13, 1927.—The annual outing of the Eastern Long Island Association of Master Plumbers to be held at Montauk Manor, Montauk, L. I., N. Y.

August 13, 1927.—The annual outing of the Detroit Association of Sanitary and Heating Contractors, Inc., at Commerce Lake, Mich.

August 18, 1927.—The annual outing of Connecticut State Master Plumbers' Association, at Double Beach, Branford, Conn.

August 23, 1927.—Monthly tournament of the Metropolitan Trade Golf Association, at Yountakah Country Club, Nutley, N. J.

August 24, 1927.—*The annual outing of the Master Plumbers' Association of Baltimore City, Inc., to be held at Heintzeman's Shore.*

August 25, 1927.—The fifteenth annual clambake of the Master Plumbers' Association of New Bedford, Mass., and Vicinity, Inc., at Whitfield's Pavilion, Fairhaven, Mass.

August 26, 1927.—The annual outing of the Master Plumbers Association of the Oranges at Connor's Hotel, Water Witch, N. J.

August 27, 1927.—The outing of the South and North Shore Master Plumbers Associations of Long Island, at Lighthouse Inn, Freeport, L. I., N. Y.

August 27, 1927.—The annual clambake of the Master Plumbers' Association of Plainfield, N. J., and vicinity, at H. Pfaff's restaurant, Park avenue road, near Metuchen, N. J.

September 8, 1927.—September tournament of Western Trade Golf Association at Glen Flora Country Club, Waukegan, Ill.

HERE ARE THE ANSWERS

(Questions will be found on page 23)

1.—An organization of plumbing and heating salesmen organized in 1907:

2.—Provide wooden plugs between the sections.

3.—27.

4.—125.

5.—27.

6.—In San Antonio, Tex., the week of July 10.

September 10, 1927.—The annual outing of the Master Plumbers' Association of Jersey City, N. J., to be held at Blasberg's Farm, Hawthorne, N. J.

September 14, 1927.—The annual outing of the Bronx Branch of the Master Plumbers' Association of New York City, at Karatsonyi's Hotel, Glenwood Landing, Long Island.

September 14, 1927.—The annual clambake of the Master Plumbers & Steamfitters' Association of Westchester County, N. Y., at the Colonial Inn, City Island.

September 21, 1927.—Joint tournament of Western Trade Golf Association and Michigan Trade Golf Association, at Battle Creek Country Club, Battle Creek, Mich.

September 24, 1927.—The annual outing of the Queensborough branch of the Master Plumbers Association of the City of New York at Narragansett Inn, Lindenhurst, L. I.

October 7, 1927.—Last tournament of season of the Western Trade Golf Association, at Calumet Country Club.

Asheville, N. C.—Gray Gorham, 14 Government street, and others, will erect a $500,000 commercial hotel on Patton avenue, opposite Ashland avenue.

THE TRADE

WITH MASTER PLUMBERS AND HEATING CONTRACTORS

PROGRAM FOR THE TWENTY-SECOND ANNUAL MEETING OF A. S. S. E.

The official program for the twenty-second annual meeting of the American Society of Sanitary Engineering, which is to be held in Jacksonville, Fla., August 9, 10, 11 and 12, with headquarters at Hotel Carling, has just been issued by President Thos. J. Claffy, and follows herewith in full:

Tuesday Morning, August 9

Call to Order—John Fowler, chairman of convention city committee.

Invocation. Welcome.

Response—Thos. J. Claffy, president of the society.

Roll Call—Edw. L. Groeniger, secretary of the society.

Appointment of Committees.

Tuesday Afternoon

Minutes of the Twenty-first Annual Meeting.

Reports of Officers—President, Secretary, Treasurer.

Report of Research Committee—Wm. C. Groeniger, S. E. chairman.

Wednesday Morning, August 10

Address—By Dr. M. B. Herlong, commissioner of health and sanitation, Jacksonville.

Address—By Dr. B. L. Arms, state health officer, Jacksonville.

Insurance against Water-borne Diseases through Plumbing Fixtures—Wm. C. Groeniger, S. E., Columbus, Ohio.

Discussion

Wednesday Afternoon

Inspection tour of city water front and water supplies.

Thursday Morning, August 11

Drinking Water Temperature—By A. E. Smith, Columbus, Ohio.

Discussion

Closet Bowl Performance—By A. E. Smith, Columbus, Ohio.

Discussion

Plumbing Fixtures as a Source of Water Supply Pollution—By C. J. Henderson, Seattle, Wash.

Discussion

Thursday Afternoon

Corrosion of Soil, Waste and Vent Pipes—By A. C. Shaver, S. E., Birmingham, Ala.

Discussion

Kitchen Wastes—By W. M. Smith, Dayton, Ohio.

Discussion

Plumbing Inspectors and Sanitary Engineers Qualifications, Duties, Compensation—By Jos. J. Crotty, New York.

Friday Morning, August 12

Report of Committees—Audit, Resolutions, Special Committees.

Special Report—By W. C. Groeniger, S. E.

Standardization of Definition of Terms—By R. M. Starbuck, Hartford, Conn.

Friday Afternoon

Report of Board of Directors. Good of Order. Election of Officers. Adjournment.

GREETINGS TO OUR MEMBERS

By Thomas F. Nolan, National President, Albany, N. Y.

THE 45th annual convention of the National Association of Master Plumbers of the United States held at Minneapolis during June is now a matter of history and a pleasant remembrance. It was a great convention in every sense of the word; the attendance was large and thoroughly representative of our honored calling, and enthusiasm and good feeling prevailed from the very opening to the close of the convention.

An organization that can put up such a convention has just reason to feel proud. As for the work accomplished, it exceeded all expectations, and this is making no mention of plans discussed for our attention during the current association year, which, we have reason to believe, are destined to make the National Association of indispensable need to the trade.

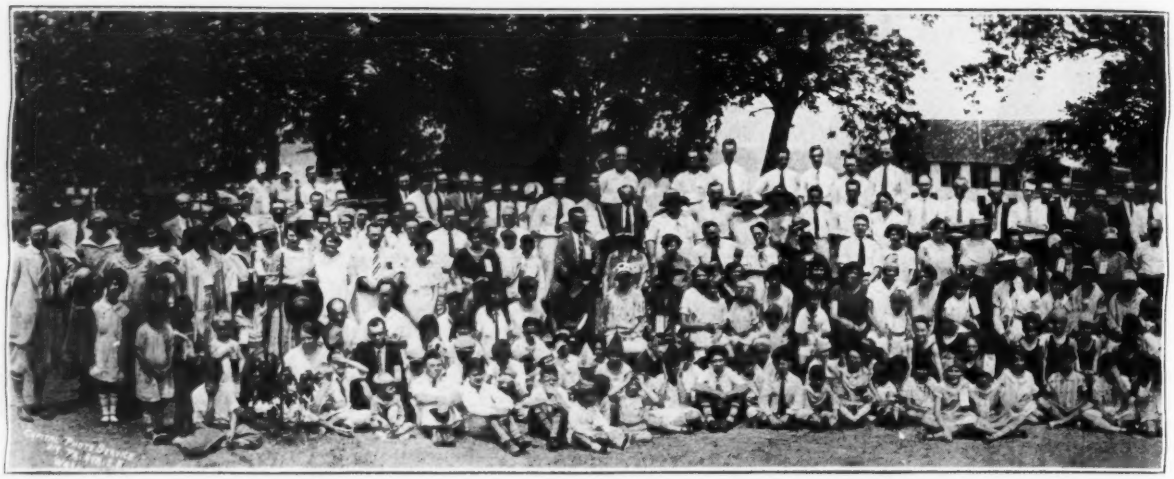
Those members who were unable to attend the convention missed an intellectual and social treat. It is presumed that the delegates who attended, however, have, ere this, rendered official reports of the convention to their respective local associations, and that the members generally have read the very excellent trade press reports of same, so that the entire membership ought, by now, to have a rather good idea of what took place at Minneapolis.

When the printed proceedings of the convention are out, which will be as promptly as circumstances permit, it is my hope that the members carefully digest every word contained therein. This is important for there will be nothing but what concerns our trade and, besides, it will convince the most skeptical of the fact that the national association is engaged in important work—of concern to every member.

For myself, I might speak volumes and yet but feebly express the gratitude I feel for the distinguished honor conferred upon me when elevated to the presidency of the association by the duly qualified delegates, in attendance at that wonderful meeting. I feel that a great trust has been placed in my care for one year, and my actions shall be guided by a deep sense of responsibility—a responsibility to each and every one of our twelve thousand or more members, hailing from every part of our common country.

If we would accomplish all the work we have in view, of course, we must needs have the hearty cooperation of every member, and, from all indications, I am convinced that we can depend upon this. Let us, therefore, keep this thought constantly in mind, and by pulling together, may we not hope to further strengthen the national association and make of it a power for even greater good.

Greetings and best wishes to all!



Part of the group of master plumbers and their families and friends at the annual outing of the Washington, D. C., association

WASHINGTON, D. C., MASTER PLUMBERS HOLD ANNUAL OUTING

The Master Plumbers' Association of Washington, D. C., held its annual outing Wednesday, July 27, at Chapel Point, Md. All went by auto, leaving the Peace Monument promptly at 9:30 a. m., with President Barrett leading the way. After a pleasant drive the party arrived about 11 a. m. As each auto arrived, everyone was given a ticket which entitled him to dinner and refreshments. A fine chicken dinner was served, and after justice had been done to it, the athletic events were started.

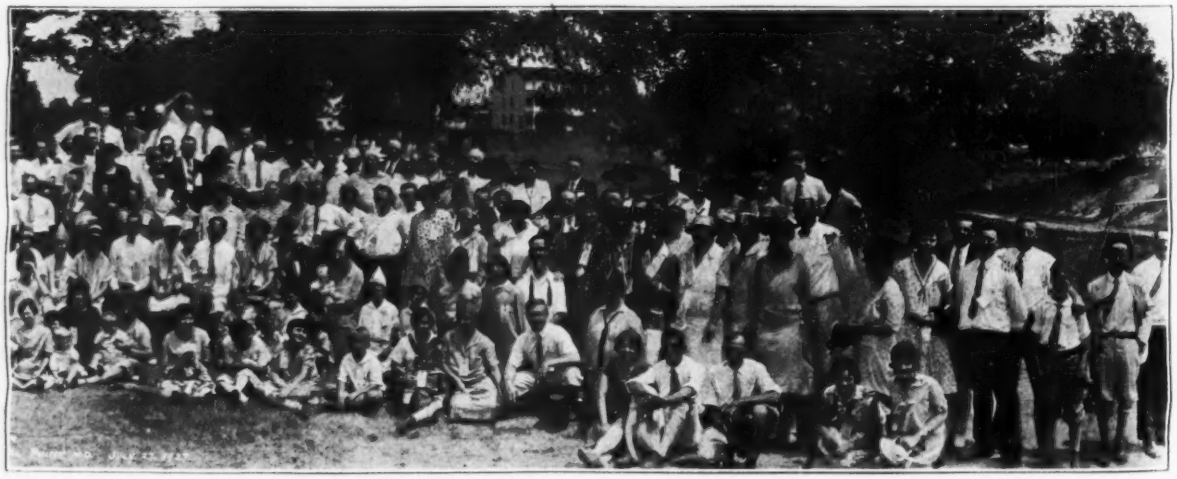
The children's race, for girls six to eight, was won by Elizabeth Hall. The race for girls eight to sixteen was won by Elizabeth De Lawder. In the race for boys from six to twelve, Thomas O'Hanlon was winner, and R. McCarthy won first prize in the race for boys twelve to eighteen. In the ladies' ball-throwing contest, Agnes Hullins was winner and the ladies' race was won by Elizabeth O'Connor. Sam Schiel proved himself the swiftest in the fat men's race. Balloons were distributed and furnished merriment for the crowd.

The big event of the day was the ball game between the jobbers' salesmen and the master plumbers. The pitching of Rabbitt for the master plumbers and of Robertson of Crane Co. was good and both teams put on an exciting game. The plumbers won out in the last inning, when hits by Rabbitt, Schaeffer, Cross and Bentley proved too much for their opponents. Clark and Eslin starred with some one-handed catches, and McGluich and De Lawder with their base running. For the salesmen, Murphy of Crane Co. and Taylor of Crane Co. featured with their hitting, and Cost of Cunningham Plumbing Supply Co., Inc., with his fielding. The final score was 8 to 6 in favor of the master plumbers.

E. J. Healy of Sloan Valve Co. was base umpire and H. W. Cutler, architect, of Washington, was behind the bat. The line-up for the ball teams was as follows:

Salesmen	Plumbers
Robertson, p.	Rabbitt, p.
Russo, c.	Schaeffer, c.
C. Kirkpatrick, ss.	E. McGluick, ss.
Kirkpatrick, 3b.	Clark, 3b.
Taylor, 1b.	Cross, 1b.
Beamer, 2b.	Bentley, 2b.
Geo. Cost, lf.	Eslin, lf.
Perry, rf.	De Lawder, rf.
Murphy, cf.	Boland, cf.

The committee responsible for the success of the affair was composed of: Frank Bentley, chairman; R. Barrett, D. H. Alsop, George J. Cross, Jr., Thomas E. Clark, Henry Eberly, H. C. Eslin, J. Millard Hall, W. D. Haislip, F. W. Koehler, J. E. Lyons, W. E. Miller, Frank Kerr, E. J. McGolrich, W. E. Owens, C. E. Rabbitt, C. W. Sorrel, H. A. Scroggins and M. A. Welsh.



Another part of the group of master plumbers and their families and friends at the annual outing of Washington, D. C., association

Women's Auxiliaries

St. Louis Auxiliary Plans Boat Excursion

At the July meeting of the Women's Auxiliary to the St. Louis (Mo.) Master Plumbers' Association, delegates to the convention of the National Association delivered their reports, and members felt encouraged, by the success of the convention, to work with even greater zeal for the good of the auxiliary. Several new applications for membership were received as a result of the convention. Mrs. R. D. Balston and Mrs. Joseph M. Hunt were welcomed as new members. The auxiliary is now making plans for its annual boat excursion, and all are working hard to make it a success. A card party is also being planned for early fall.

Syracuse Auxiliary Holds Outing

Members of the Syracuse, N. Y., auxiliary spent Saturday, July 16, at an outing as the guests of Mr. and Mrs. Walter Coling at their summer home in Erieville, N. Y. About fifty were present, including the husbands and families of the ladies.

The day was ideal for an outing, and everyone took advantage of the bathing facilities offered by the location. Supper was served in the home of Mrs. Coling. Mrs. A. Cavanaugh was chairman of the committee in charge of the arrangements, and she was assisted by Mrs. J. Snigg and Mrs. E. G. Houde.

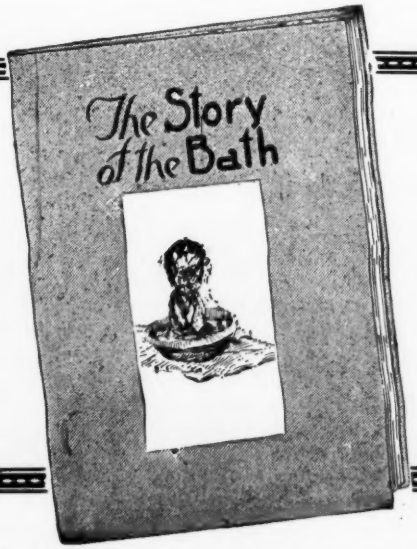
The accompanying photograph of Syracuse ladies was taken at the outing of the master plumbers. In the front row are: Mrs. W. B. Young, Mrs. John Lavelle, Mrs. F. W. Sheppard, first vice president; Mrs. E. G. Houde, president; Mrs. James F. Guider, secretary; Mrs. J. P. Snigg, treasurer; Mrs. F. H. Rinehart, second vice president. In the back row are Mrs. P. Pearson, Mrs. W. F. Gooley, Mrs. Walter Coling, Mrs. Fred Grethel, Mrs. Charles Leiger, Mrs. A. Cavanaugh, Mrs. Pierce Shane, Mrs. Herman J. Gaebler, Mrs. E. W. Mautz and Mrs. C. J. Straub.

A group of ladies of Syracuse, N. Y.

Kansas City Auxiliary Members Escape Tornado at Merriam

The July meeting of the Women's Auxiliary of Kansas City, Mo., was held at the suburban home of Mrs. James J. Cunningham, at South Park, Merriam, Kans., a suburb of Kansas City, Mo. This meeting was unusually well attended for this period of the year. The president, Mrs. John Karges, displayed her ability and activity in her report of the National Convention, the proceedings of which she defined very minutely. The membership committee has worked very hard, as shown by the number of new members present. Following the meeting, lunch was served on the lawn. Mrs. Cunningham was assisted by Mrs. Ira Henderson, Mrs. William Knox and Mrs. Glover Beanland. (Mrs. Beanland is the daughter and Mrs. Cunningham the daughter-in-law of J. P. Cunningham at whose suggestion the meeting was called in February,

This is the booklet "Rotarian George McCrary" is distributing to Birmingham Rotarians



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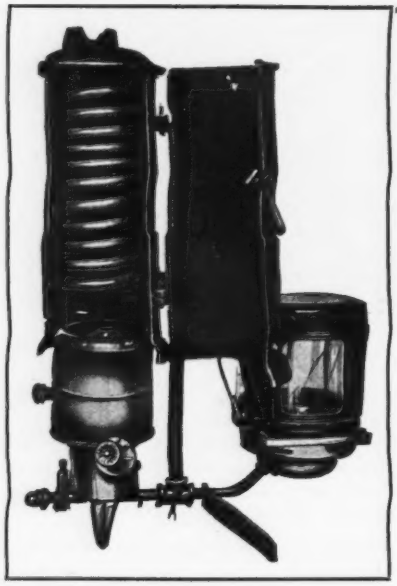

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1911, to call a meeting to organize the Women's Auxiliary.)

Mrs. Glover Beanland, corresponding secretary of the Kansas City, Mo., Auxiliary, adds the following note about the tornado which occurred at South Park, just as she was writing the above report. Our readers will be glad to know that she and Mrs. Cunningham escaped injury, although serious damage was done to property. "It was while writing this report that a terrible tornado dealt havoc in our midst at 5 p.m. July 17 (South Park, Merriam, Kans.), where just the week previous our July meeting was held. Fortunately my own residence was spared serious damage, although situated in the heart of the greatest destruction. From my window I see homes, gardens, orchards completely demolished. The beautiful home of Mr. and Mrs. Jas. J. Cunningham, where our recent meeting had taken place, did not escape damage. The roof was partly destroyed, windows broken, the shrubbery swept away, and the many giant walnut and maple shade trees broken and uprooted. The concrete veranda and honeysuckle-covered pagoda were practically destroyed. Mrs. Cunningham was at home at the time but escaped injury. Mr. Cunningham had just left home for the open field with a young bird dog, for its weekly training, and was caught in the midst of the cyclone, which carried him for a hundred yards and left him uninjured in a large hedge fence. The dog was carried some two hundred yards farther.

"Four deaths occurred during the storm and two persons died later from injuries. More than three score were injured severely. The district was placed under martial law and the National Red Cross is now in charge. As usual in cases of this type, the Women's Auxiliary showed its promptness and resourcefulness by being one of the first to send clothes, food and money for temporary relief."

John L. E. Firmin, secretary emeritus of the State Association of Master Plumbers of California, has just concluded a two weeks' visit among friends in Los Angeles and has returned home.

C. R. Hutton, president of the State Association of Master Plumbers of California, left Saturday, July 23, for a three weeks' vacation in the High Sierras. He will spend the time trying to depopulate the trout streams of that section.

W. D. Hyland, a member of the Miami, Fla., Plumbing and Heating Dealers' Association, has the sympathy of his friends in the trade, on account of the death of his wife, Mrs. Lillian D. Hyland, which occurred recently in a Miami hospital. Burial was at Charlotte, N. C. Mrs. Hyland is survived by three children.

Martin Bauml of San Antonio, Texas, and vice president of the San Antonio Master Plumbers and Heating Contractors Association, has purchased the property at Commerce and Hackberry streets and will start construction soon of a modern plumbing establishment.

Ambrose H. Higham, Salt Lake City, Utah, past president of the Utah State Association of Sanitary and Heating Engineers and a member of the board of governors of the Salt Lake Sanitary and Heating Engineers Association, has returned from a trip to Kemmerer, Wyo.

John W. Dudley, assistant manager of the Will Rees Plumbing Company, Salt Lake City, Utah, and former secretary of the Utah State Association of Sanitary and Heating Engineers, and Ross Dudley, secretary of the Salt Lake City Sanitary and Heating Engineers Association, have recently returned from a ten day vacation fishing trip.

Business Changes

Ironwood, Mich.—The Gogebic Plumbing & Heating Co. has moved to a new location in the Curry building in this city.

Portland, Ore.—The Hansen Plumbing & Sheet Metal Works is now in a new location at 4615 Sixty-seventh street, S. E. William Hansen is manager.

Hillsboro, Ore.—W. H. Huff has bought the plumbing business of J. C. Weirick, who expects to enter the plumbing field in some capacity in Portland.

New Business Ventures

Salt Lake City, Utah.—A master plumbers' license has been issued to C. J. Leaker, 120 Heather Street.

Kingsville, Tex.—The J. W. Hunter Plumbing Co. has been incorporated with a capital of $10,000 by Julia Irene Hunter, L. A. Huppertz and E. W. House.

Springfield, Mass.—Beaumier Bros., Inc., has been granted a Massachusetts charter to do a business of plumbing and heating, with a capitalization of 1,000 shares of no par value stock. The incorporators are: George A. Beaumier and Wyman H. Smith.

Salem, Mass. — The Taylor-Rousseau, Inc. has been granted a charter to conduct a plumbing and heating business. The incorporators are: William E. Rousseau, Harold Taylor and Claude Taylor.

Central Heating

Le Mars, Ia.—F. O. Kehrberg, Sheldon, Ia., has been given a franchise and will at once begin construction of a $125,000 central heating plant.

Austin, Minn.—The Austin Central Heating Co. is now taking bids on construction of its central heating plant. Work is to begin by Aug. 15.

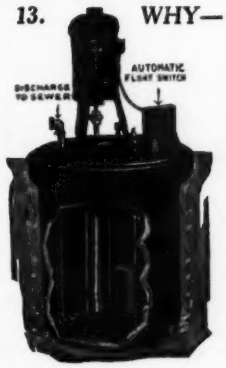
Sleepy Eye, Minn.—The Sleepy Eye Heating Co. has let the contract for extension of the heating mains east on Walnut street for 234 ft. to the Leitschuh-Seidl Hardware Co.

Iowa City, Ia.—Plans are being drawn for a new $160,000 unit for central heating plant for University of Iowa. The first unit is not yet completed. When the entire plant is completed it will have a capacity to furnish heat for the entire group of university buildings, numbering about eighty.

Binghamton, N. Y.—The General Cigar Co., which is erecting a $600,000 cigar factory will also build a central heating plant.

Front: William McNair of San Antonio, W. D. Zuefeldt of Dallas and David McNair of San Antonio.—Rear: C. W. Davis of Dallas and R. S. Kelly of Dallas. Photo taken at the recent annual convention of the Associated Master Plumbers of Texas, held at Fort Worth

13. WHY—



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Clare and Kloman Sts. Baltimore, Md.

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Building News

Early August reports indicate that a peak in building activity is being maintained for the time being at least, and no cause for anxiousness over an abatement is seen on the part of architects and building contractors. The extensive geographical distribution of the larger projects reported this week also indicates that this sustained building activity is general. Below are some of the larger proposed buildings reported this week:

St. Louis, Mo.—A new $4,000,000 civil courts building will be erected here, construction to start soon.

Victoria, B. C., Can.—Announcement is made of a $2,725,000 grain elevator and flour mill construction plan by a Buffalo-Vancouver syndicate. Work will be started immediately.

Baltimore, Md.—H. E. Crook Co., Inc., 28 Light street, has the contract for the heating and ventilating work in the erection of the $2,000,000 city hall annex.

San Jose, Calif.—Preliminary plans have been completed by Architect W. H. Weeks, 369 Pine street, San Francisco, for the $1,500,000, ten-story, concrete, 214-room, Spanish type hotel, to be situated on the site of the old Notre Dame convent.

Old Point Comfort, Va.—The Charles T. Taylor Plumbing Co., 17 South King street, Hampton, received the contract for the plumbing and heating in the $1,250,000 Vanderbilt-Chamberlin Hotel here.

San Antonio, Tex.—The San Antonio Athletic Club, of which Alfred Von Jess is secretary, is having preliminary plans made for a club house to cost about $1,200,000.

West Hartford, Conn.—Bids are to be called soon for several buildings for the St. Thomas Seminary to be erected on a recently purchased tract of land on Bloomfield Road. Architect Louis A. Walsh, 51 Leavenworth street, Waterbury, has prepared plans for a 3-story granite, limestone and steel main building, 60x480 ft., to include suites of rooms to accommodate 20 professors; a dining hall to seat 400; kitchen, refrigerating and machine rooms; also classrooms and physical and chemical laboratories. There will be two dormitory sections, each 40x160 ft. At a later date the seminary will erect a gymnasium to include a large swimming pool. Plans for this part of the project have not been prepared. The total work will cost in excess of $1,000,000.

Portland, Ore.—Architects Stuart & Wheatley, Walker building, Seattle, Wash., are taking bids on plumbing and

Top picture: The officers and board of governors of the Philadelphia association.—Bottom picture: A group of ladies of the Philadelphia association. Photos taken at the annual convention of the Pennsylvania state association, held recently in Harrisburg

heating for a $1,000,000 apartment building for the Exeter Co.

Minneapolis, Minn.—The Young Women's Christian Association will erect a new $1,000,000 building at Nicollet avenue and Twelfth street.

Baltimore, Md.—The contract for the installation of the heating and plumbing fixtures in the new $1,000,000 Municipal Art Museum, has been let to the Kirwan Engineering Co., 1308 East Baltimore street.

Montgomery, Ala.—Construction of a modern metropolitan hotel costing approximately $1,000,000, has been announced by members of the Wolffe family. The new building will be erected on the site where the Imperial Hotel was recently destroyed by fire.

Nashville, Tenn.—Three new buildings will be erected on the campus of the Vanderbilt University at a cost of $1,000,000.

St. Louis, Mo.—The L. B. Kenton Construction Co., Wainwright building, has the general contract for the police headquarters building of the Central District, at a cost of $1,000,000.

Stores and Office Buildings

Milwaukee, Wis.—Bids are being taken for a store and office building to be erected here. Lindle & Schutte, Inc., are the architects.

Abilene, Tex.—Contract for an eight-story office building, with reservation by the owners of an option to add from one to four stories before completion, has been awarded here by George L. Paxton and W. G. Swenson, Abilene capitalists, to R. E. McKee of Abilene and El Paso.

Charlotte, N. C.—Remodeling of the home of the American Trust Company, located in the American building, South Tryon street, at a cost of $100,000, will be carried out between now and early fall.

Muskogee, Okla.—The Grinnell Heating Company, Tulsa, has the plumbing and heating contracts on the new $750,000 Medical Arts Building here.

Rochester, N. Y.—The National Bank of Rochester has acquired two sites in this city for the erection of branch banks, according to William T. McCaffrey, president. Bids will be called for at an early date, and work begun as soon as possible. One of the new bank buildings will be built in the northern part of Rochester, and the other in the northwestern part.

Rochester, N. Y.—Plans have been filed by representatives of Harper Sibley for a $400,000 office structure in East Avenue, near Alexander street. The building will be of brick, steel and reinforced concrete, four stories high. It will be 165x121 ft. and the ground floor is to be occupied by an automobile showroom and six stores. Arnold & Stern are the architects and John F. Ancona is the engineer.

Portland, Ore.—H. C. Hastorf, of Hastorf & Lord, Inc., has taken out a permit for the erection of a two-story office and store building at 455 East Morrison street, to cost $80,000.

Racine, Wis.—Plans are being completed and bids are being received for a store and office building to be erected by Fred Hermes & Son.

San Antonio, Tex.—Definite plans are being completed by Dr. F. L. Thomson, president of the Graburg Oil Co., for the construction of an office building at Travis and North Alamo streets. Construction will start as soon as Travis street is cut through as is now planned. The build-

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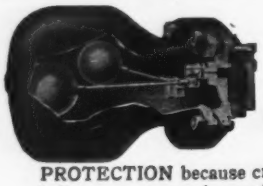

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Save time and money and do a better job.
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ing will be twelve or fourteen stories, of brick, cast stone trim and reinforced concrete and will cost about $750,000.

Amarillo, Tex.—E. A. Harrison, chief engineer of the Santa Fe Railroad, with office in Chicago, Ill., is preparing plans for the construction of an office building of brick, stone and reinforced concrete to cost $750,000.

Milwaukee, Wis.—Bids are being taken for an office building to be erected here. Eschweiler & Eschweiler are the architects.

Oshkosh, Wis.—G. E. Paterson Co. has been awarded the heating contract and C. W. Thayer has been awarded the plumbing contract on a $125,000 remodeling job on a bank building here. Auler, Jensen & Brown are the architects.

Milwaukee, Wis. — Wenzel & Henoch Co. has been awarded the heating and plumbing contracts on a $450,000 store, garage and office building being erected here. Martin Tulgren & Sons are the architects.

Wauwatosa, Wis.—Wenninger Brothers have been awarded the heating and plumbing contracts on a store, office and apartment building under construction here.

Minneapolis, Minn.—The L. H. Johnson Co., 918 La Salle avenue, has been awarded the plumbing contract on the four-story, 60x118 ft. office building being built by the Standard Oil Co. at Thirteenth street and Harmon Place, at a cost of $130,000. Schlinz & Bailey, 53 West Jackson boulevard, Chicago, Ill., are the architects.

Minneapolis, Minn.—The E. A. Lamb Plumbing & Heating Co., 244 Second avenue south, has been awarded the plumbing and heating contract on the 12-story, 82x100 ft. office building being built on the corner of Seventh street and Marquette avenue by the Intersection Holding Co., Morris T. Baker, president, third floor, Baker building. The cost will be about $900,000. Larson & McLaren, 308 Baker building, are the architects, and G. M. Orr, 307 Baker building, is the mechanical engineer.

Wenatchee, Wash.—A. G. Michaud states that he will proceed within a month on construction of a hotel building to cost $100,000. It will be of steel and concrete with light face brick. It will be probably completed by the first of the year.

St. Louis, Mo.—W. H. Smith, 110 North Seventh street, has the general contract on a $100,000 store and office building for the Vesper Buick Auto Co., at the corner of Vandeventer and West Pine streets.

Columbia, Mo.—Boller Brothers, 114 West Tenth street, Kansas City, are making plans for a theater, store and office building for J. Dozier Stone, 414 Exchange National Bank building.

Kelso, Wash.—Woolworth Co. is closing a lease for a site on Pacific street next to the First National bank building, where a modern fireproof structure will be erected to be used for the company's store.

Eugene, Ore.—The J. W. Swope Construction Co. has received the general contract on the $200,000 telephone building. Work will be started at once and it is expected to have the structure completed by November 1.

Portland, Ore.—Hastorf & Lord, Inc., have been awarded the plumbing, heating and ventilating contracts on the new $500,000 Kress building.

Oshkosh, Wis.—The Paterson Heating Co. has been awarded the heating contract and C. W. Thayer has been awarded the plumbing contract on the New American Bank.

Alamo, Tenn.—Construction will soon start on the new modern banking building on the northwest corner of Court square for the Peoples Bank of Alamo.

Pulaski, Wis.—Oppenhamer & Obel, Green Bay and Wausau, Wis., are taking bids for a new bank, office and store building to be erected here for the Liberty State Bank.

Birmingham, Ala.—Construction has started on the four-story office building of the Southern Life & Health Insurance Co. at the southwest corner of Highland avenue and Ashe street, which is to cost $200,000.

Pine Bluff, Ark.—H. C. Couch, president of the Arkansas Power & Light Co., is planning to build a ten-story office building at 411 Main street. The new building will cost $350,000.

Minneapolis, Minn.—W. W. Heffelfinger, president of the Pierce Holding & Development Co., has announced a six-story medical block and a two-story office building and garage for Third avenue South and Tenth street to cost in excess of $400,000.

Seattle, Wash.—Architect V. W. Voorhees, Lloyd building, is preparing plans for a $400,000 office building for J. R. Moore.

San Antonio, Tex.—Col. C. C. Walsh, chairman of Federal Reserve Bank, Dallas, Tex., will have plans completed soon for a branch bank and office building to cost about $250,000.

Boston, Mass.—J. W. Praught, Dorchester, has been awarded the heating contract, and the Allston Plumbing Co., Brookline, the plumbing contract for alterations to be made to the office building at 371 Commonwealth avenue, under plans prepared by Architect Ralph Harrington Doane of 162 Newbury street. The general contractor is Nathan Hurwitz of 294 Washington street.

Schools

Blue Mountain, Miss.—Architects are drawing plans and specifications for the new $100,000 fire-proof dormitory and the new $125,000 administration building at the Blue Mountain College, according to its president, L. T. Lowrey.

Front Royal, Va.—Mosley Brothers, 1721 Gilmore street, Lynchburg, Va., have the plumbing and heating contract on the new academy building at Randolph Macon College.

Birmingham, Ala.—Plans are under way for the erection of three buildings to be constructed at present and to cost $125,000 to form a part of the negro university to be erected here.

Portland, Ore.—Plans are being rushed for the Girls' Polytechnic School which will cost $350,000, according to Jay H. Keller, engineer, Worchester building, who is now going over the heating and ventilating plans. George Jones is the school board architect.

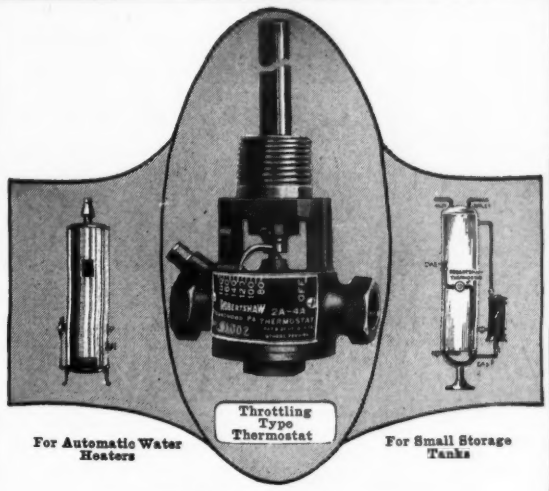
Portland, Ore.—Bids for construction of the new Portsmouth school will be closed early this month. The school board has appropriated $225,000 for this structure.

Harrisburg, Tex.—Plans are being prepared for the construction of new schools and additions in this district to total $400,000.

McCamey, Tex.—Plans are being drawn by David S. Castle Co., architects, Abilene, for the construction of a high school of brick, tile and reinforced concrete, to cost $250,000.

Houston, Tex.—The Modern Plumbing and Electric Co. has been awarded the plumbing and heating on additions to a school for the Houston Independent School District.

Brownsville, Tex.—The Brownsville Independent School District has had plans prepared for the construction of a



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Robertshaw Thermostats have been in continuous successful service in the plumbing trade for more than 28 years.

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Federal Water Heater Co.
Handley-Brown Heater Co.
Hoffman Heater Company
Holyoke Heater Company
Hoyt Heater Company
Koil-lee Heater Company
Kompak Company
W. E. Lanneck Company
Lone Star Water Heater Co.
Lovekin Water Heater Co.
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Ohio Heater Company
Peerless Heater Company
Payne Furnace & Supply Co.
Pennsylvania Globe Co.
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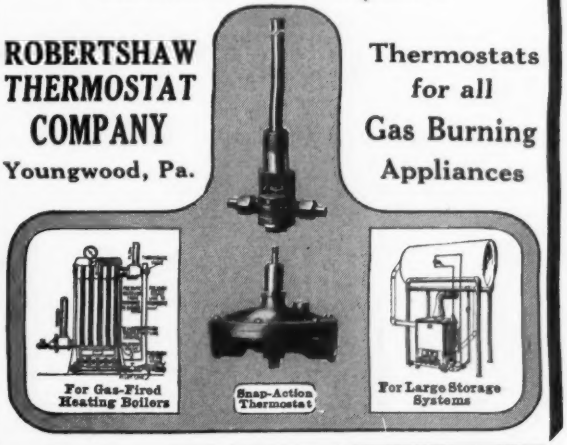

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New York City

high school of brick, cast stone and reinforced concrete to cost $350,000.

Bonne Terre, Mo.—F. H. Dearing, president of the board of education, will soon take bids on construction of a $100,000 high school.

Canyon, Tex.—E. F. Rittenberry, Blackburn building, Amarillo, is preparing plans for a $275,000 building for the Texas State Teachers' College.

Beloit, Wis.—Bids are being received by Architects Merman & Skogstad, La Crosse, for a $140,000 vocational school to be erected here.

Niagara, Wis.—Carl Riggins, Oconto, has been awarded the heating and plumbing contract on a bid of $19,420, for the addition to a high school here. Derrick Hubert, Menominee, Mich., is the architect.

LaCrosse, Wis.—The plumbing and heating contract on the $165,000 Central High School has been awarded to F. M. Branson & Son. Parkinson & Dockendorf are the architects.

West Allis, Wis.—S. V. Hanley, of Milwaukee, has been awarded the plumbing contract on the vocational school building under construction here, and the Paul E. Mueller Co. has received the heating contract on the same building. R. Messmer & Brothers are the architects.

Macedon, N. Y.—A new school building to cost approximately $135,000 will be built in this village. Ground is expected to be broken early in August. Carl Ade, Rochester, is the architect.

Wallingford, Conn.—The Choate School is having plans prepared by Cram & Ferguson, 248 Boylston street, Boston, Mass., for a new infirmary building at the school. The project will cost $140,000, and construction figures will be received the latter part of the month.

Southbridge, Mass.—A trade school of brick construction is to be erected in the Robert H. Cole district at an estimated cost of $100,000. In accordance with plans by the M. A. Dyer Co., 1 Beacon street, Boston, the structure will be 105x60 ft. Figures will be called for in a short time.

Rutland, Vt.—Architect A. Graham Creighton, 140 State street, New London, Conn., is working on the plans for the $300,000 high school building for which this city has voted an appropriation. It is expected plans will be ready for figures during the latter part of August.

Weymouth, Mass.—Clark & Smith, of Quincy, have secured the contract to erect the Pratt School, which the town is to build on Pleasant street. The plans were drawn by Architect H. B. S. Prescott of Boston.

Malden, Mass.—Plans for a junior high school, to be built on Pleasant street, have been prepared by Architects Desmond & Lord of Boston, in association with Architect C. F. Springall of this city. Construction bids will be requested shortly.

Lynn, Mass.—At a meeting of the Lynn school committee, held recently, approval was voted on an appropriation of $200,524, to be used in the reconstruction of the Cobbett junior high school, destroyed by fire several weeks ago. Insurance of $155,000 already has been collected on the building and $20,000 additional is to be paid on the contents. The appropriation made will also provide for the construction of an administration building and an elementary school addition to the Cobbett school. The general contract for the work has been awarded to Knute Swanson of this city.

Wheatland, Wyo.—The North Platte Plumbing & Heating Co., North Platte, Nebr., with a bid of $12,980, has been awarded the plumbing and heating contract on the two-story, 61x165 ft. grade school under construction.

E. L. Goldsmith & Co., Scottsbluff, Nebr., are the architects.

Pierre, S. D.—The I. Stokke Plumbing Co., Sioux Falls, with a bid of $14,835, has been awarded the plumbing and heating contract on the junior high school being built here. H. R. Horner is clerk of the Board of Education.

Cheney, Wash.—Plans for a Commons Building for the campus of the State Normal School are being considered by trustees. *Julius Zittel is the architect. C. P. Lund,* chairman of the building committee, states that it is hoped to start this work in August. The building will be for the use of the women and will cost, with furnishings, about $150,000. The state normal board is also preparing to build a home for the president of the institution, as $22,500 was made available for this by the *legislature at its last session.*

Niagara Falls, N. Y.—Chester E. Phelps, school architect, has completed plans for a grammar school building to be built here, which is designed as an addition to the present Niagara street school, and combining with the latter will constitute one of the most elaborately equipped primary schools in Western New York. The new building will contain 25 class rooms, and will include a swimming pool and shower baths.

Collegeville, Minn.—A four-story dormitory to accommodate 120 men will be built by the St. John's Catholic University. O'Meara & Hills, 1011 Pioneer building, St. Paul, are the architects.

Oswego, N. Y.—Taxpayers at a special election here voted $500,000 for the erection of two modern grade schools, two stories high, of twenty-four rooms each, to be built of brick, steel and concrete, 250x125 ft. The architects are Gilbert Van Auken of Syracuse and Milton C. Miller of Buffalo.

Mankato, Minn.—Bids will soon be received by Sts. Peter's and Paul's Catholic Church, for the construction of a two-story grade school and a two-story high school in that city, to cost $100,000 each. O'Meara & Hills, 1011 Pioneer building, St. Paul, are the architects.

Saugus, Mass.—Isaac Coffin Co., 52 Sudbury street, Boston, has been awarded the contract for the heating of the new Felton school.

Clubs and Lodges

Monrovia, Calif.—Plans are being revised and new bids will soon be taken on the proposed home for the B. P. O. Elks. Bennett & Haskell, 600 Security building, Pasadena, are the architects.

Balboa, Calif.—Working plans covering the construction of a $450,000 beach and country club near here are in course of preparation by Architect Norman W. Alpaugh, Inc., 2404 West Seventh street, Los Angeles. In addition to the usual service accommodations, there will be 50 guest rooms with baths, a bathers' grille and lounge, two swimming pools 40x120 ft. each, two children's pools 15x70 ft. each, and locker accommodations for 1000 men and 800 women.

Somerville, Mass.—Bids have been closed for the alterations to be made to the Young Men's Christian Association building on Highland avenue, and announcement of the name of the successful bidder will be made shortly. The cost of this work will be approximately $150,000, according to the plans as prepared by Architect Walter Atherton, 15 Exchange street, Boston.

Dedham, Mass.—Thomas F. Riley, Norwood, has been

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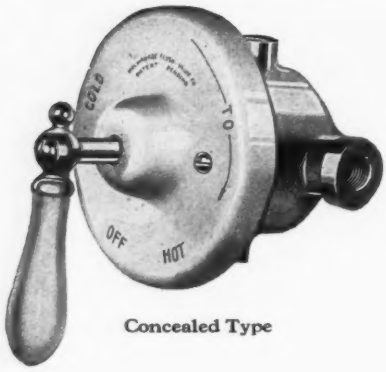

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awarded the plumbing contract for the new Masonic temple, which is to be erected for Constellation Lodge, A. F. and A. M. on Washington street. The general contractor is the Central Engineering and Construction Co., Pawtucket, R. I.

Kenosha, Wis.—Bids are being received for a $100,000 club building to be erected here, by Architect Charles O. Augustine.

Fulton, Mo.—Berry McAlester of Columbia has the heating and plumbing contract in the erection of the Beta Theta Pi fraternity house.

Guthrie, Okla.—Guthrie is to be the home of one of the largest petroleum clubs in the state, it was announced by Loren Hutchens, secretary of the Guthrie Chamber of Commerce. The new building will be erected at a cost of $100,000.

New Haven, Conn.—Architects William Thompson, 342 Madison avenue, New York, and Douglas Orr, 956 Chapel street, will prepare plans for a new Y. W. C. A. building to be built on Humphrey street. Preliminary sketches are now being drawn for the approval of the committee.

North Providence, R. I.—The Roger Williams Lodge of Masons No. 32 has appointed H. H. Wardell, chairman of the committee in charge of plans for the proposed Masonic Temple building to be built on Steirs avenue. The architectural firm of William R. Walker & Sons, 49 Weybosset street, Providence, has been retained to prepare the specifications.

Plymouth, Mass.—Figures will be asked at once for the new Masonic Temple to be built on Court street for the Plymouth Lodge A. F. & A. M. According to plans by Kendall, Taylor and Co., 142 Berkeley street, Boston, the structure will be a three-story brick affair, 88 by 52 ft.

Municipal and Government Work

Poplar Bluff, Mo.—Plans have been drawn for the erection of a new Butler county court house to cost approximately $265,000.

Yadkinville, N. C.—The heating contract on the new jail has been let to the Burlington Hardware Co., Burlington, N. C.

Harlingen, Tex.—The plumbing installation in the new municipal auditorium has been let to the Magic Valley Plumbing Co., San Antonio.

San Augustine, Tex.—The Sunset Plumbing Co. of Dallas, has the plumbing contract on the new courthouse to be built here.

Jamestown, N. D.—A federal building will be constructed here, at the cost of approximately $150,000.

Minneapolis, Minn.—The Western Heating Co. has the plumbing and heating contracts on the new Fort Snelling Memorial chapel.

Chicopee, Mass.—Corcoran & Dunn have been awarded the heating contract and Chaput & Sansoucy, the plumbing contract on the new fire station, which the city is erecting on Grattan street.

Walla Walla, Wash.— The G. H. Sutherland Co. has been awarded the plumbing contract on the fire station to be built by the city.

East Haven, Conn.—Bids are in for the proposed town hall to be built on Thompson avenue and Main street. Douglas Orr, 956 Chapel street, New Haven, has prepared plans for a two-story brick structure, 105x125 ft., to cost around $175,000.

Wilber, Nebr.—Architect Marcus L. Evans, Brandeis bldg., Hastings, will have plans completed about November

25 for a $250,000 court house. J. M. Korbel is clerk of county.

Jackson, Miss.—Plans have been drawn up for a new fire station in West Jackson. The building will be of the bungalow type.

Shreveport, La.—This city is to have a new auditorium. Tentative plans have been completed by Jones, Roessle, Olschner & Weiner. Seymour Van Os is associate architect for the project.

Theaters

Portland, Ore.—Remodeling on the Majestic theater for which Bennes & Herzog have completed plans, will go forward, the specifications having been approved by the stockholders. The building construction will amount to about $135,000.

Pocatello, Ida.—The Main Street Investment Co. will start construction at once of a $250,000 theater-apartment-store building, and bids on the plumbing and heating work will be called soon.

Burlington, Wis.—Bids are being received by Architect J. Mandor Matson of Racine, for a theater building to be erected here.

Kenosha, Wis.—Bids will be received about Sept. 15, by Architect Charles O. Augustine, for a $450,000 theater, store and hotel building to be erected here.

Racine, Wis.—Bids will be received for a theater, store and office building by Architect J. Mandor Matson.

Dallas, Tex.—A $500,000 theater-building program for the Rio Grande Valley is planned by Dent Theaters of Dallas. A new $125,000 playhouse will be erected in Harlingen, a $75,000 building in Edinburg and a $300,000 playhouse is planned in Brownsville.

Kansas City, Mo.—William F. Flemming will erect a new theater at Broadway and Valentine Road at a cost of $400,000.

Baton Rouge, La.—Architectural plans have been completed for the proposed new building for the Little Theater Guild here. The president of the organization is Mrs. Alice Singletary Thomas. The plans are now in the hands of the building committee.

Industrial

Shrewsbury, Mass.—L. Rocheford & Son of 44 Front street, Worcester, have been awarded a contract to erect a manufacturing plant, storehouse and garage here for the Chelmsford Ginger Ale Co. The plans were drawn by Thomas Hixon, Boston architect.

Buffalo, N. Y.—The Hall Baking Co. has filed plans for an addition to its bakery at 2381 Fillmore avenue.

Starkville, Miss.—A bottling plant is to be erected soon, to be in operation in October, according to announcement by C. C. Clark, of the Coca-Cola Co. Building details are waiting on the location of a proper site.

Everett, Mass.—Architect M. J. Mastrangelo of Boston has prepared plans for a manufacturing plant which the Trimont Bottling Co. is to have erected at the corner of Spring, Second and Terminal streets. The general contract has been awarded to Frankini Brothers of 30 Mystic avenue, Medford.

Vancouver, B. C., Can.—An addition to the Burrard Grain elevator to cost $500,000 will be started at once.

Buffalo, N. Y.—The Niagara Machine Tool Co. has filed plans for enlarging its machine shop at a cost of $100,000.

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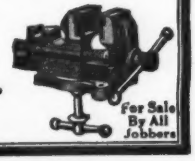

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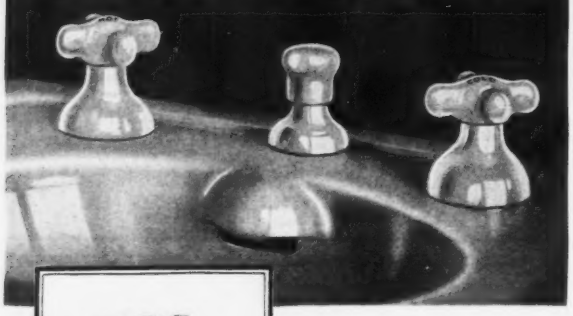

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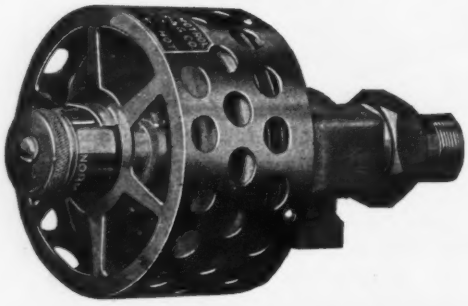

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San Francisco, Calif.—A. Ramazzoti, 1473 Vallejo street, has secured the plumbing contract on a $75,000 laundry plant being built for the New San Francisco Laundry at Fifth and Harrison streets.

Waterloo, Ia.—The Zook & Bentz Plumbing & Heating Co., 512 Lafayette street, has the plumbing and heating contracts on the $200,000 bakery building for the Campbell Baking Co.

Linn, Kans.—The Washington County Co-operative Creamery Association, is taking bids on the construction of a creamery building.

Lake Charles, La.—Elmer Shutts, city engineer, is preparing plans for a new wharf unit which will include a steel and sheet iron warehouse.

Pensacola, Fla.—Still further additions to the ice plant on East Garden street are planned by the Florida Light & Power Co., according to an announcement by F. L. Tunis, acting manager. The plans include a 50-ton capacity ice plant.

Shreveport, La.—The first step in the expansion of the Dixie Creameries, Inc., will be the erection of a $100,000 milk condensery, at or near Shreveport. Building is expected to start in 60 to 90 days, depending on the location of a site.

Plaquemine, La.—City officials here are planning to establish an ice plant and storage room in connection with the municipally owned water works and electric light plant.

Los Angeles, Calif.—Plans have been completed and the contract has been let for the construction of a factory building for the Albatross Steel Co., at the corner of University and Sawtelle Boulevards. The building will be of brick and will be equipped with a sprinkler system.

Providence, R. I.—Belcher & Loomis have plans out for figures for a new four-story concrete and steel service building, 110x120 ft., to cost $175,000. Jenks & Ballou, industrial engineers of 1035 Grosvenor building, prepared the plans.

Stoneham, Mass.—A contract will be awarded shortly for the construction of a five-story structure for the E. L. Patch Co. The building, which will be 60 ft. x 85 ft., will give additional floor space of more than half an acre. It will be built opposite the company's present plant on Montvale avenue, and will be used largely for storage purposes.

St. Louis, Mo.—The Century Electric Co., 1806 West Pine street, of which E. S. Pillsbury is president, will take bids this month on a $200,000 addition to its foundry building.

Moberly, Mo.—The Brown Shoe Co., of St. Louis, is taking bids on the construction of a $200,000 addition to its factory in this city.

Minneapolis, Minn.—Waldron, Inc., 1028 La Salle avenue, of which M. B. Waldron is president and treasurer, is having plans prepared for a $200,000 laundry plant to be erected this summer.

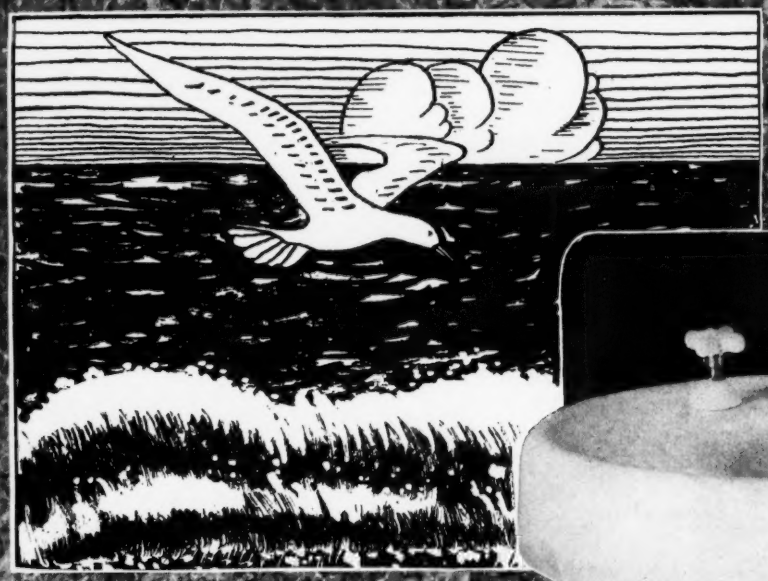
Rochester, N. Y.—The Metal Arts Co. will build a brick and steel factory building at 740 Portland avenue. B. Frank Kelly is the architect.

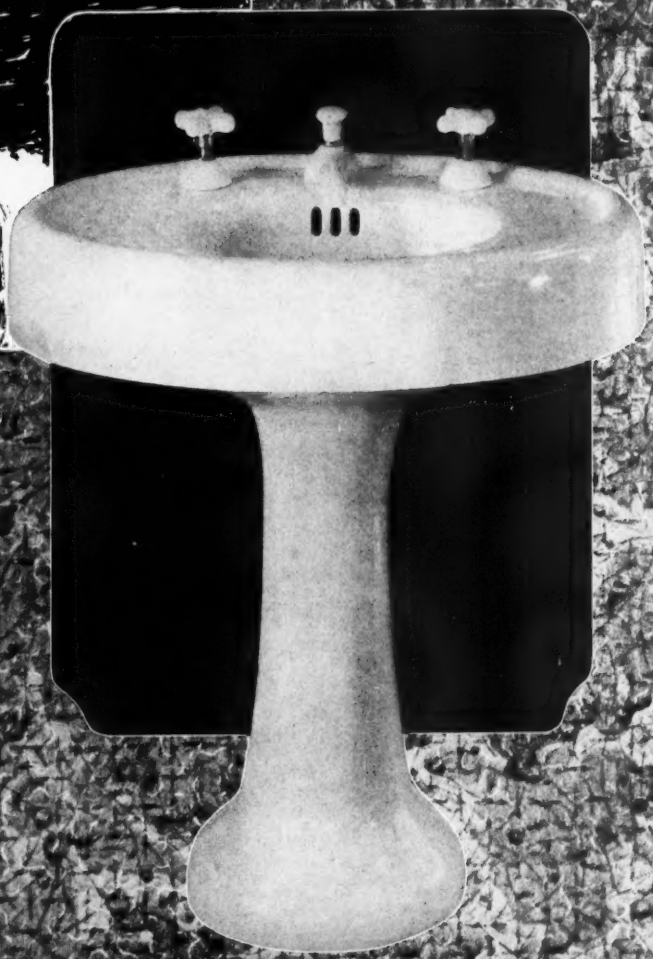
Hoquiam, Wash.—Chris Kuppler & Sons of Seattle have been awarded the contract for construction of a pulp and paper mill for the Zellerbach interests.

Portland, Ore.—A. G. Rushlight & Co., are installing plumbing in the building of the Superior Service Laundry Co.

Laurel, Miss.—Plans are being rushed to completion

Everlasting Whiteness





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People gladly pay for two exclusive advantages in the famous Bull's Eye Water Heater. *One* is the higher efficiency—The Bull's Eye saves from *one-third* to *one-half* the cost of heating water. The *second* is freedom from liming up troubles—The Bull's Eye *has no coils* to clog.

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The Bull's Eye makes a beautiful installation as shown. In addition it may be lacquered in any color desired to correspond with kitchen or bathroom fixtures.

for the plant for the Cash & Carry Ice Co., and construction will begin shortly.

Watertown, Mass.—The Turner Construction Co. has been awarded a contract to erect a manufacturing plant and warehouse according to plans drawn by Monks & Johnson, engineers of 99 Chauncey street, Boston. L. C. Kelly of Roxbury, has been given the plumbing contract, and James S. Cassedy of Cambridge, the heating contract.

Buffalo, N. Y.—Dodd's Alderney Dairy, Inc., will build a large dairy, storage and stable at 202 Walden street.

Vancouver, B. C., Can.—A contract for the erection of a soap factory has been awarded by the Royal Crown Soap Co.

Burlington, N. C.—The North Carolina Silk Mills, Inc., will erect 50 new dwellings in Piedmont Heights at a cost of $100,000.

Boston, Mass.—From plans prepared by Engineer H. S. Cleverden, 40 Cornhill street, an office and manufacturing building is to be erected for the Meisel Press at Dorchester and Crescent avenues, in the Dorchester district. The structure is to be of brick and cast stone construction, two stories and basement, and 227x93 ft. in size.

Providence, R. I.—The Aberthaw Co., Boston, Mass., has just been awarded a contract, on a bid of $254,800, for the erection of a warehouse and sales building for the Belcher & Loomis Hardware Co. The contract calls for a building four stories in height, with a frontage of 110 ft. on West Exchange street, extending back on Mason street for 223 ft.

Cambridge, Mass.—Engineer F. E. Leland is putting the finishing touches to plans for a factory building which is to be erected for the Tallby Nason Co., Amherst and Carlton streets. Bids will be requested soon.

Los Angeles, Calif.—Plans will be ready for bids some time early in September covering an eight-story concrete warehouse, to be situated at Pico boulevard and Crenshaw street, and to cost about $250,000. F. Eugene Barton, Crocker building, is the architect.

***Sacramento, Calif.**—The Consumers Ice & Cold Storage* Co. will erect a three-story concrete addition to its plant at Eighth and D streets, at a cost of $125,000. H. L. Lincoln, 354 Pine street, San Francisco, is the engineer.

Top row: Joseph McDonald and Youngs Morgan, both of Groton; John Rockholtz and J. H. Murray, both of New Haven. Bottom row: Fred Walker of New Britain, John Troland of Norwich, George Wigglesworth of Naugatuck, C. A. Andrews of New Britain. Photos taken at the recent annual convention of the Connecticut state association, held at Bridgeport

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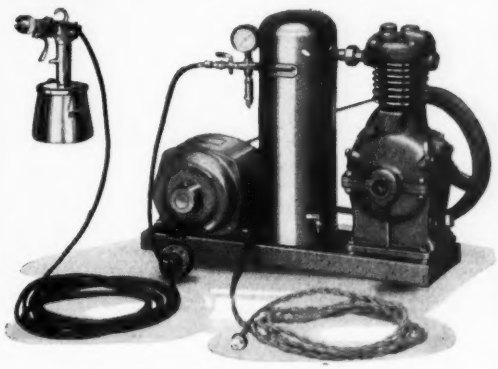

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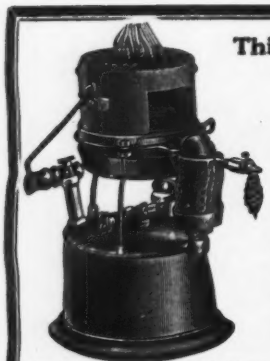

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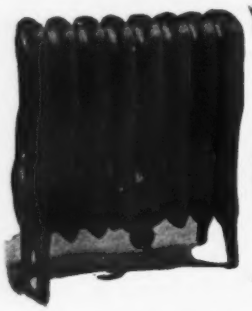

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COMET RADIATOR CO.
2010 Market St., Philadelphia, Pa.

San Francisco, Calif.—J. H. Pinkerton, 927 Howard street, secured the plumbing and heating contracts on the $110,000, five-story, concrete addition to the Schwabacher-Frey plant on Third street.

St. Louis, Mo.—Architects Klipstein & Rathmann, 316 North Eighth street, will take bids the last of August on the construction of a $1,000,000 candy factory for the National Candy Co.

St. Louis, Mo.—The Universal Automobile Service Co., of which Charles R. Felton is president and manager, has let the general contract to Mid-Continent Construction Co. for a $500,000 garage building.

Syracuse, N. Y.—The plumbing contract on the New Herald Building at the intersection of Noxon and North Franklin streets and Marnell avenue, which will be one of the most modern and complete newspaper plants in the country, has been awarded to T. X. Donovan, of 636 South Warren street. The heating contract will be awarded shortly.

Churches

Waterloo, Ia.—Bids are being taken by First Church of Christ Scientist for a church building.

Phoenix, Ariz.—Architect V. O. Wallingford has prepared plans for a church to be erected at Third and Fillmore streets for the Grace Lutheran congregation.

Coral Gables, Fla.—The Coral Gables Congregational Church, of which Rev. Thomas B. Powell is pastor, will soon begin the construction of a Sunday school building as the second unit of a $400,000 structure.

Gainesville, Fla.—The First M. E. Church, of which L. D. Lowe, 507 East Main street, is pastor, will receive bids until August 15 on the construction of a church and Sunday school building.

St. Louis, Mo.—The Meiners Plumbing & Heating Co., 6154 Page avenue, has the plumbing, and the Elliott & Barr Engineering Co., 4060 West Pine street, the heating contract on the Catholic Church at the corner of Hamilton and Minerva avenue.

Houston, Tex.—Work will start soon on the new Norhill Church of Christ, a modern structure to be located at Cottage and Reagan streets.

Charlotte, N. C.—Plans are now being completed for the construction of the Myers Park Presbyterian church to be erected on Providence road at Burdham road, at a cost of $100,000. Work will begin about September 1.

Jacksonville, Fla.—Plans are now being drawn by Mark & Sheftall, architects, for a $200,000 Sunday school building for the Riverside Park Methodist Church.

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Hundreds of clubs have already installed this new shower mixer. Because, for the first time, it insures ACCURATE and ABSOLUTE control of temperature, it enjoys a wide demand. That demand is your big opportunity.

Powers Shower Mixer is a profitable item for the plumber-contractor. Look into its possibilities. Send for free descriptive book, with list of clubs where now used, experience of users, tests, and other helpful information.

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L Y T HAS A COMPLAINT TO MAKE

For two years I have been trying to enjoy a visit with an old friend. I don't suppose he realizes it, but we haven't had half a dozen quiet words together in all that time.

Suppose we go over there on Monday night. I've got the baseball dope all figured out. Do you think I get a chance to spill it? Not on your life. I've hardly parked the $3.85 straw hat before someone says, "Let's go to the movies." I've tried talking in the movies before and I don't want to repeat the experience. Evidently some people actually watch the picture.

If we go over there on Tuesday evening, someone says, "Let's go for a ride." So we get into the car that has the red-headed engine and away we go. My friend lets his son drive—if you can call it that. I have no heart for statistics, even on baseball, when we're steaming down the wrong side of the street at fifty miles an hour, looking for a hole to crawl into before the fellow coming our way at about the same rate of speed reaches us. If we don't find that hole, something's bound to happen, and my statistics get all scrambled up.

On Wednesday night it's bridge. If you think you can talk baseball at a bridge table, just try it. Why, even Mrs. Jones, who has never been known to keep her trap—er—to keep silence for one minute at a time, sets her lips in a grim line and doesn't open them except to snap, "Two hearts!"

On Thursday evening things look good. Maybe I can get Ed off in a corner and give him the dope. He's all wrong about Philadelphia. But no chance. I watch with a loving eye the $3.85 straw skimmer hung up, and just then someone turns on the radio. Their idea of radio entertainment is to start turning the dials. A reedy voiced tenor is singing, "I Hear You Calling Me." He's allowed to sing about two lines and then he's cut off with the remark, "That's station WXQ, Poison Ivy, Okla." The dials turn and we are deafened by a crash of jazz music. Hurried reference to the newspaper programs, and we hear that it's station WTB, down in Florida. And so on, until we've had about sixty seconds' entertainment from every station within reach. The game is called "Fishing," I believe, and my only regret is that there isn't some water around into which I can push the whole family.

I can't spend every night in the week at Ed's—in fact, I'm beginning not to care if I spend any night there. What I want to know is, how in the name of thunder am I going to get Ed for a quiet talk about my dope on baseball before the season's over?

"I had a unique experience the other night," says T. N. O'F., of Los Angeles, Cal. "I was asked to mind the baby next door. You know what always happens in the comic strips. Well, will you believe me—the kid didn't let a peep out of it, and I didn't have to walk the floor with it!"

A 75mm BORE

The worst of bores
Is the son-of-a-gun,
Who can't forget
That hole in one.
M. T. N., Helena, Mont.

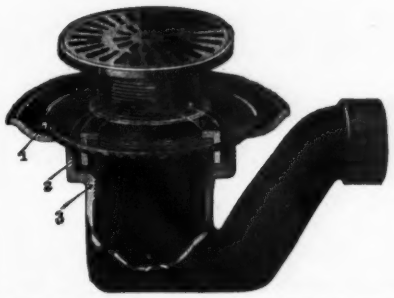
"SY" SEZ

There was a young fellow named T8,
In a hurry he rode on a Fr8.
A cr8 on the track
Knocked the fr8 on its back
And T8 was real l8 for his d8.
"SY" MARTIN, Owensboro, Ky.

"Sy" headed the above "Such Is F8."

The chap who used to snap his gallusses has gone the way of the old-fashioned girl. L Y T.

THE NEW SEEPAGE DRAINS
BOOSEY'S



NO MORE TROUBLE WITH SEEPAGE HOLES BEING FILLED WITH CEMENT

This trap is provided with forty-eight seepage openings, thereby providing ample space for seepage.

Surrounding these openings as indicated by No. 1 is a porous fibre gasket which prevents them being filled with cement when the floor is laid.

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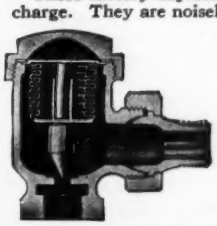
SARCO
Radiator Traps

The Fraternity Clubs Building, New York, is the home of 17 college fraternity clubs and is the most modern building of its kind. It has 17 stories and contains about 550 rooms.

In designing this handsome structure the architects, Murgatroyd & Ogden, New York, took unusual precautions to see that everything possible was done to insure utmost comfort to the guests—to insure economical operating costs and durable equipment. So Sarco Radiator Traps were used throughout.

These factory-adjusted traps have unusually large discharge. They are noiseless in operation. Won't freeze or air-bind. Prevent water hammer. Are self-cleaning and easy to take apart.



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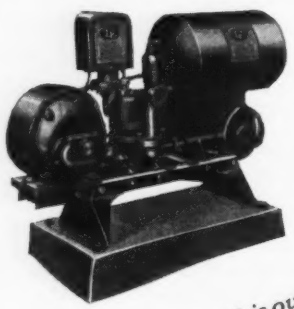

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Swimming-Pool News

Thackerville, Okla.—Plans are under way for a $10,000 swimming pool. W. C. High is promoter of the project. The pool will be constructed during the winter and made ready for the bathing season next year.

Chillicothe, Mo.—Plans for a municipal swimming pool are being worked out by committees from the Verne R. Glick Post of the American Legion.

Gloucester, Mass.—Architect H. L. Kennedy, 80 Boylston street, Boston, is preparing plans for a swimming pool to be constructed here. Specifications for the plans include a modern filtration system, pumps and stone and concrete construction work.

Lexington, Mass.—W. H. Ballard is chairman of the commission, and has prepared plans for a modern concrete swimming pool to be constructed here.

Laguna Beach, Calif.—Plans are being prepared for a Spanish style residence for Lewis H. Lasley to contain 14 rooms, 5 baths, showers and a swimming pool.

Monisee, Wis.—Joseph Kopchinski has been awarded the contract to install a swimming pool here at a cost of $4,995.

Smith's Grove, N. S., Can.—William Cossaboom, proprietor of the Harbor View House, has arranged to build a swimming pool on the property adjoining the hotel buildings.

Riverside, Cal.—The improvements at March Field, which will be under the supervision of Col. W. C. Gardenshire, will include a swimming pool.

Tarboro, N. C.—W. L. Bell and T. E. Bell have 110 acres of land, and will develop a golf course and construct a swimming pool thereon.

Shreveport, La.—The Park Board will construct a wading pool at the Queensborough Playground.

Omaha, Nebr.—The Omaha Field Club, of which J. B. Fradenburg is director, is having plans prepared for construction of a swimming pool.

Medical Springs, Ore.—Pat Powers is about to let the contract for a 40x126 ft. swimming pool, the hot water coming from the springs.

Whittier, Calif.—The trustees of the Whittier Union High School, are taking bids on filters, pumps, heaters, etc., for a plunge.

Epigrams—For Your Use

There is more or less dead wood in every family tree.

* * *

One kind of dignity is used to cover an intellectual vacuum.

* * *

Not having a secret is the only way to keep one.

* * *

Telling a man he can't be flattered is the best way of flattering him.

* * *

What we need is more paint on the old place and less on the young face.

* * *

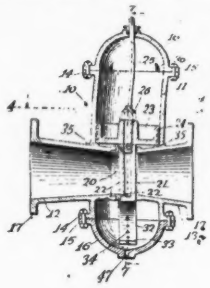
Experience is the best teacher, but also the most expensive.

Wichita Falls, Tex.—The Wichita Falls State Hospital will let the contract August 10 for a $125,000 patients' dormitory and a $50,000 employee's dormitory.

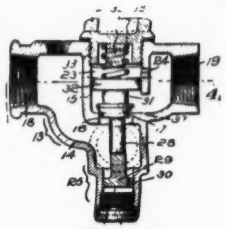
PATENTS

Plumbing Department

1,631,481. Water-Shut-Off Valve. Frederick Gfeller, Alhambra, Calif. A valve comprising a cylindrical body, closures for the top and bottom of said body, a pair of aligned conduits extending into said body having their adjacent ends disposed in spaced relation therein, webs connecting the sides of the conduits to the sides of the body and co-operating with the conduits in defining an upper piston cylinder and a lower chamber in said body, a closure adapted to be disposed between the adjacent ends of said conduits for preventing the passage of fluid therethrough, a piston reciprocable in said piston cylinder and secured directly to the closure, and means for admitting fluid pressure to the piston cylinder upon either side of the piston so as to move the piston and closure.



1,631,481.

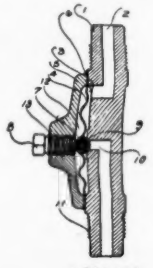


1,631,142.

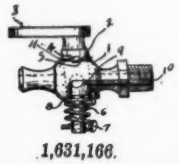
1,631,142. Water-Supply System and Valve Therefor. John Howard Masters, Dayton, Ohio, assignor to The Vaile-Kimes Company, Dayton, Ohio. In a water check device for a water supply system, a valve casing having a web therein, a portion of which web is transverse to the axis of the valve and is provided with a valve opening, and a portion of which web, constituting an upward continuation of said transverse portion, extends lengthwise the stem of said valve and constitutes a prolonged, substantially cylindrical, receiving and guiding portion at one side of the valve, a valve seated in said opening and having upon its stem above said valve opening a piston-like portion received and guided by said lengthwise extending portion of said web, and means to permit water of the system to pocket between the said piston-like portion and the valve casing.

* * *

1,631,406. Valve. Charles P. Eisenhauer, Dayton, Ohio, assignor to The Duro Company, Dayton, Ohio. In a valve, a valve body having a passageway therethrough, a

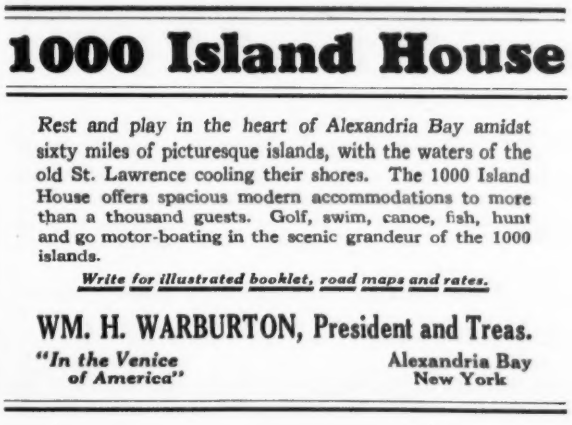


1,631,406.



1,631,166.

valve member adapted to control said passageway, a diaphragm associated with said valve member and said passageway interposed between the valve member and its actuating means, and an actuating means for said valve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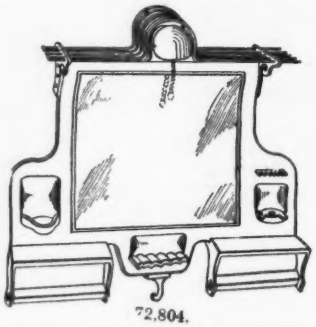
member, separable from said diaphragm and valve member, said diaphragm being corrugated, said valve member being located in and positioned by one of the corrugations of said diaphragm.

* * *

1,631,166. Self-Closing Stopcock. Earl V. Sprague, Davenport, Iowa, assignor of one-third to Everett C. Wilson and one-third to Harry J. Hilson, Davenport, Iowa. A device of the class described, comprising a body member having a tapered bore and a valve member of corresponding shape rotatable therein, said body and valve members having interacting elements capable of automatically unseating the valve member upon an initial rotary movement thereof, by causing a limited movement thereof lengthwise of its seat; and a tension device, adapted to return said valve to its original rotative position after being rotated, and also capable of causing a reseating of said valve member after the same has been unseated.

* * *

72,804. Bathroom Wall Fixture. Sydney E. Sharwood, Lakeland, Fla., assignor to The F. H. Lawson Company,

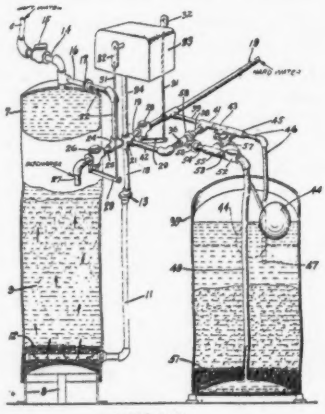


72,804.

Cincinnati, Ohio. The ornamental design for a bathroom wall fixture, as shown.

* * *

1,632,610. Control Mechanism for Water Softeners. Lynn G. Lindsay, Minneapolis, Minn. A device of the class described comprising a bed tank having a hard water supply pipe, a valve for said pipe, a brine tank, pipe connections between the hard water pipe and brine tank,



1,632,610.

including an injector arranged for sucking brine from the brine tank when the hard water valve is closed, an auxiliary hard water pipe within the brine, a valve in the auxiliary line controllable by brine level, and pipe connections between brine and auxiliary hard water pipes, including automatically operable valves adapted to open toward the injector.

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Miscellaneous

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PRACTICAL STEAM AND HOT WATER HEATING AND VENTILATING. By Alfred G. King. This book should be in every steamfitter's library. A strictly up-to-date work, describing various systems of heating and ventilation. Besides the technical features, it contains hints on securing contracts, *business methods, shop practice, rules* and data for estimating radiation and figuring costs, and other tables and suggestions that are time savers. Size, 6x9 in. 368 pages, 300 detailed illustrations. Cloth. Price, $4.00.

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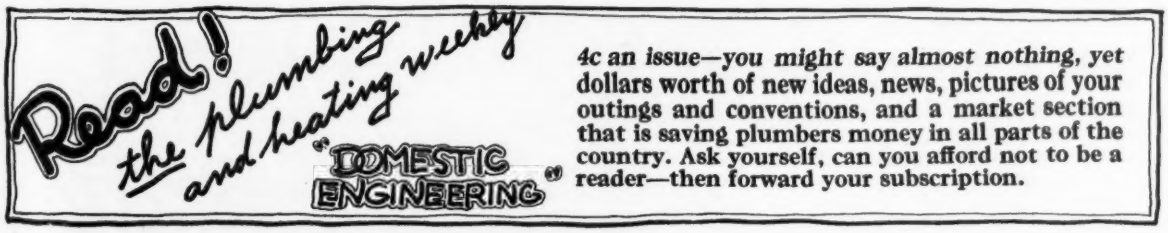

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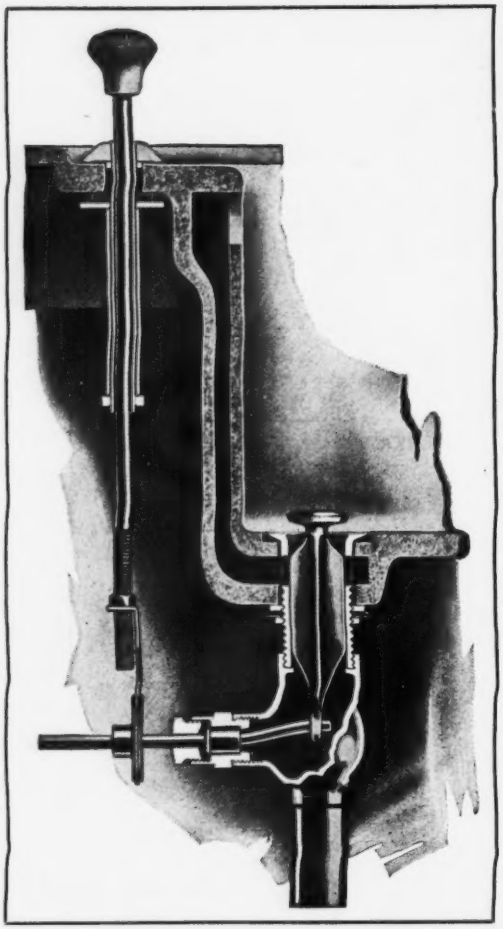

The world is full of great men and women whose greatness is unknown to their fellow men—perhaps even unknown to themselves. To think clearly, to serve faithfully, to have regard for the well being of others, that is greatness. The world may not know it—your friends may not realize it, but it is greatness nevertheless.

—The Owl.

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